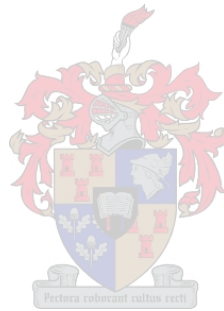


An analysis of an urban edge as urban growth management instrument: Cape Town, South Africa

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MASTERS TOWN AND REGIONAL PLANNING

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DECLARATION

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SUMMARY

The City of Cape Town (CoCT) has since the 1990s employed an urban edge line and development edges policy as growth management instruments in its spatial development framework (SDF) (CoCT 2011). However, in the most recent Cape Town Spatial Development Framework (CTSDF) of 2017 they no longer make use of an urban edge line or policy as an instrument to contain horizontal urban spatial growth. Instead, the latest CTSDF champions development that will support transit-oriented development in the urban core and notes the city's intention not to extend services towards the urban periphery in the short-term (CoCT 2017). This sees a considerable turn-around from the stated historic apprehension to persistent growth pressure to the northern and eastern urban extremities of the metropolitan area by using an urban edge, and seems to suggest that the former urban edge policy was considered inappropriate or problematic to the CoCTs objectives for spatial development in the latest SDF. Reasons for the termination of this policy-approach formed the basis of this research in which, firstly, the spatial outcomes of the urban edge line and policy in Cape Town since 2001 was evaluated by using an urban sprawl index (USI); and secondly, the decision-making processes associated with urban development proposals contravening the urban edge line and leading to the ultimate termination of the urban edge policy instrument were analysed by applying a five-stream confluence model. The research results revealed disproportionate population growth compared to urban expansion over a comparable time period, suggesting that the urban edge line and policy, during its time of acting as an urban growth management instrument was successful. Evaluation of decision-making processes revealed consistent poorly motivated political decisions contravening the urban edge line and development edges policy, in favour of a neoliberal growth agenda, thereby strongly suggesting a neoliberal capture of the decision-making authority.

KEY WORDS

Urban growth management, urban edge, decision-making, sprawl index, local politics, planning, power, Cape Town, South Africa

OPSOMMING

Die Stad Kaapstad pas sedert die 1990s in die Ruimtelike Ontwikkelings Plan 'n stedelike grens en ontwikkelings grens beleid toe as stedelike groei bestuur instrument. In die mees onlangse Kaapstad Ruimtelike Ontwikkelings Plan (ROP) word daar egter nie meer 'n stedelike grens of beleid toegepas om horisontale stedelike ruimtelike groei te beperk nie. In plaas hiervan staan die ROP ontwikkeling voor wat publieke vervoer georiënteerde ontwikkeling in die stadskern bevorder, en merk die stad se intensie om nie dienste verskaffing na die periferie van die stad uit te brei nie. Hierdie benadering dui op 'n omswaai van die histories uitgesproke weerstand teen volgehoue ontwikkelings druk aan die noordelike en oostelike stedelike uiterstes van die metropolitaanse gebied deur die gebruik van 'n stedelike grens, en skep die indruk dat die vorige stedelike grens beleid as ontoepaslik en problematies beskou is met die oog op die Stad Kaapstad se doelwitte in die nuwe ROP. Die redes vir die beëindiging van die beleidsbenadering het die basis gevorm vir hierdie navorsing waarin eerstens, die ruimtelike uitkomst van die stedelike grens en beleid in Kaapstad sedert 2001 geëvalueer is deur middel van 'n stedelike verspreidingsindeks, en tweedens die besluitnemingsprosesse soos geassosieer met stedelike ontwikkelings voorstelle wat die stedelike grens oorskry en wat uiteindelik aangelei het tot die beëindiging van die stedelike grens en beleid geanaliseer is deur gebruik te maak van 'n vyf-stroom samevloeiings model. Die navorsings resultate dui op disproporsionele populasie groei teenoor stedelike uitbreiding gedurende 'n vergelykbare periode, wat dui op die sukses van die stedelike grens beleid gedurende die tyd wat dit was stedelike groei bestuur instrument aangewend is. Evaluering van die besluitnemingsprosesse het konsekwente, swak gemotiveerde politiese besluite wat die stedelike grens en beleid oorskry aangedui, tot voordeel van 'n neoliberale ontwikkelings agenda. Sogenaamde besluite dui op 'n sterk suspisie van 'n neoliberale kaping van die besluitnemings owerheid.

TREFWOORDE

Stedelike groei bestuur, stedelike grens, besluitneming, verspreidingsindeks, plaaslike politiek, beplanning, mag, Kaapstad, Suid Afrika

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LIST OF ABBREVIATIONS AND ACRONYMS

ANC	African National Congress
APA	American Planning Association
ASGISA	Accelerated and Shared Growth Initiative South Africa
BDP	Blaauwberg District Plan
CoCT	City of Cape Town
CoJ	City of Johannesburg
CTSDF	Cape Town Spatial Development Framework
DEADP	Department of Environmental Affairs and Development Planning
DFA	Development Facilitation Act
DPL	Development Phasing Line
EM	eThekweni Metropolitan Municipality
EESP	Economic, Environment and Spatial Planning Portfolio Committee
GEAR	Growth, Employment and Redistribution Programme
ICT	Information and Communications Technology
IDP	Integrated Development Plan
KNEP	Koeberg Nuclear Environmental Plan
LUPO	Land Use Planning Ordinance
MSA	Municipal Systems Act
NNR	National Nuclear Regulator
NNRA	National Nuclear Regulatory Act
NPM	New Public Management
PHA	Philippi Horticultural Area
RDP	Reconstruction and Development Programme
RSA	Republic of South Africa
SACN	South African Cities Network
SDF	Spatial Development Framework
SPLUMA	Spatial Planning and Land Use Management Act
SPUD	Department of Spatial Planning and Urban Design
UCT	University of Cape Town
UDB	Urban Development Boundary
UDF	Urban Development Framework
UDL	Urban Development Line
UGB	Urban Growth Boundary
UK	United Kingdom
US	United States
USB	Urban Services Boundary
USI	Urban Sprawl Index

The following research outputs came forth from this research:

Research publications:

Horn A 2015. Urban growth management best practices: Towards implications for the developing world. *International Planning Studies*. DOI:10.1080/13563475.2014.942513.

Horn A & Van Eeden A 2017. Measuring sprawl in the Western Cape Province, South Africa: An urban sprawl index for comparative purposes. *Regional Science Policy and Practice* 10: 15-23.

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To my mother.

*“Let it go
Let it go
Can’t hold it back anymore
Let it go
Let it go
Turn away and slam the door
I don’t care what they’re going to say”
(Disney’s Princess Elsa in “Frozen”)*

CHAPTER 1: INTRODUCTION

"In this era, to become a spiritual inquirer without social consciousness is a luxury that we can ill afford, and to be a social activist without a scientific understanding of the inner workings of the mind is the worst folly...To be attentive requires tremendous love of living. The total revolution we are examining is not for the timid or the self-righteous. It is for those who love truth more than pretence. It is for those who sincerely, humbly want to find a way out of this mess that we, each one of us, have created out of indifference, carelessness, and lack of moral courage."

- Vimala Thakar

1.1 Introduction

A vociferous lobby in favour of limiting urban growth remains dominant in the world's largest cities despite the claim that extended metropolitan regions are to be the inevitable future of urbanisation (Hall & Hesse 2013; Jenks, Kozak & Takkanon 2008). This lobby is supported by the urban growth management discourse associated with policies that ensure environmental conservation, quality of life, taxpayer protection, efficient urban form, efficient transportation planning, urban revitalisation, environmental justice and affordable housing amongst others (Rudolf, Kienast & Hersperger 2018; Fertner et al 2016; Philips 2015; Zhao & Lu 2011; Bengston, Fletcher & Nelson 2003; Breheny 2002; Williams, Burton & Jenks 2000). One of the policy instruments employed in urban growth management approaches is urban growth boundaries or urban edges, defined as instruments used by local authorities to contain or direct urban growth in order to protect non-urban areas and encourage the development of more compact, contiguous urban areas (Nelson & Dawkins 2004).

An urban edge is delineated around urban areas beyond which urban land uses are usually not permitted, thereby limiting the total amount of greenfield land available for development (Sinclair-Smith 2014; APA 2002; Dawkins & Nelson 2002). Such edges or boundaries have been employed in the United States, Asia and Western Europe. Critical evaluation of these edges reveal differences in scholarly opinion regarding their successes and failures (Anthony 2017; Fertner et al 2016; Frenkel & Orenstein 2012; Dierwechter 2008; De Roo & Miller 2000; Leo et al 1998).

The containment of urban growth and subsequent management of physical expansion of urban areas have been part of South African spatial planning agendas and policy frameworks since the early 1990s. Heavy demands are placed on South African urbanised areas as a result of growing numbers of in-migration from rural areas, an overflow of people from economically declining African countries and the inherent population growth. Consequently, spatial planning policies in most Metropolitan Municipalities reflect principles and policies towards the management of the physical expansion of urban areas (Todes et al. 2010; Van Huyssteen et al. 2010; Harrison et al. 2008).

South Africa's economy shares similarities with cities in the global north and south. The population distribution is, however, clearly indicating a distinct shift from rural to urban, strongly suggesting that urban areas will in future remain the refuge of the rural poor (Van Huyssteen et al. 2010). Research by McDonald and Smith (2004) is critical of the notion of developmental local government in South Africa and they argue that such viewpoints underestimate the extent and effects of neoliberal policies and overestimate the potential for more participatory and state-oriented forms of urban governance. By using Cape Town as a case study, their research illustrates the extent to which neoliberal policies have been adopted by politicians in the City of Cape Town (CoCT) and argue that the neoliberal shift is due to both national fiscal pressures as well as local independent decision-making.

The City of Cape Town (CoCT) has since the 1990s employed an urban edge line and development edges policy as growth management instruments in its spatial development framework (SDF) (CoCT 2011). However, in the most recent Cape Town Spatial Development Framework (CTSDF) of 2017 they no longer make use of an urban edge line or policy as an instrument to contain horizontal urban spatial growth. Instead, the latest CTSDF champions development that will support transit-oriented development in the urban core and notes the city's intention not to extend services towards the urban periphery in the short-term (CoCT 2017). This sees a considerable turn-around from the stated historic apprehension to persistent growth pressure to the northern and eastern urban extremities of the metropolitan area by using an urban edge, and seems to suggest that the former urban edge policy was considered inappropriate or problematic to the CoCT's objectives for spatial development in the latest SDF. Reasons for the termination of this policy-approach form the basis of this research in which, firstly, the spatial outcomes of the urban edge line and policy in Cape Town since 2001 is evaluated; and secondly, the decision-making processes associated with urban development proposals contravening the urban edge line and leading to the ultimate termination of the urban edge policy instrument are analysed.

1.2 Problem statement

In the public policy sphere there has been increasing disillusionment with planning (Hillier 2002), both in its process of reaching decisions and in the outcomes of those decisions. Planners increasingly find themselves the targets of public protests against development projects of different kinds. The tension between expert knowledge and everyday knowledge, in other words rationality versus more deliberative discourse, is explored by Marcuse (2009) who concludes that the technical approach to planning (or so called rational planning models) does not challenge existing power relations in any way. People were taught that planning is technical and methodological, but have learned that it is political and manipulative (Grooms & Frimpong-Boamah 2017; Dewey & Davis 2013; Tasan-Kok & Baeten 2012; Bridge & Watson 2011; Hillier & Healey 2010). There has been a shift in urban government from managerialism to entrepreneurialism where the emphasis of planning and governance is increasingly placed on supporting business and providing the kind of environment that would attract inward investment and enhance a city's image (Bridge & Watson 2011). As such, the neoliberalist agenda has been recognised as one of the most influential components in decision-making (and power) in contemporary participatory democracy (Sager 2013). Robinson and Parnell (2011), in reviewing neoliberalism, note the pertinence of viewing urban theory from the global south and claim that it facilitates a greater understanding of lessons to be learnt in relation to specific debates in urban studies. They further recognise that under conditions of globalization and postcolonialism, new forms of urban theorizing are essential for reflecting the increasing diversity of urban life and the complexity of the challenges of city governance.

Planning theory will not play a proactive role, but will rather be constructive in problematizing planning by exposing dubious social, political and administrative processes (Flyvberg 2012). In a similar vein, Richardson (2005) expresses the need for exploring the messy side of environmental decision-making and examining the role of power relations. Scholarly inquiry has produced knowledge of program effects in a piecemeal way (Carruthers 2002), often without explicit recognition of the relevant institutional context.

In planning literature, there are ample examples of cases of plan-making and formal decision-making. There is equally a substantial amount of literature devoted to implementation. However, limited case analyses exist from the perspective of political decision-making. In this regard political decision-making seems "like a black box to planners" (Albrechts 2003: 250). There is a need for planners to understand

what actually takes place in formal decision-making and implementation. Research by Flyvberg (1998) elevates the critical analysis needed to discover the whys and wherefores of how elected representatives change the plan or cause it to deviate from its original intentions. The necessity for research into planning and political decision-making is echoed by Hillier (2002) and Forrester (2013, 1989) who advocate such research for its ability to ground theory in planning practice. If planning theory is to be of real use to practitioners, it needs to address practice as it is actually encountered in the worlds of planning officers and elected representatives. According to Hillier (2002:16), the contribution of research on planning and political communication and decision-making is that it aids theory of “discursive democratic planning praxis in a society characterized by power structures.” Friedman (1987) argues that decision-making practice must be guided by appropriate theory to avoid becoming visceral, opportunistic and reactive. In response, Hillier (2002) proposes that such theory should evolve from critical analysis of experience and be dynamic enough to absorb new learning. Theorization of experiences enables those experiences to be shared amongst a wide range of practitioners attentive to the complexities of planning practice.

Watson (2009) calls for in-depth, grounded and qualitative case-study research on state-society interactions and the dispersed practices of government, especially in the global south where technical and managerial systems of governing have been inherited from the global north and are strongly shaped by neoliberalism. She suggests that while techno-managerial and marketised systems of administration, planning and service provision often appear to be entirely sound in their own terms and may follow international best practice, problems arise at the point at which they interface with a highly differentiated urban citizenry (Watson 2009). This is especially true in southern contexts where planners are located within a “conflict of rationalities” between the logic of governing and the logic of survival (Watson 2009: 2268). Therefore, if planning theory is to secure its relevance in the global south, it needs to engage with theories which seek to understand and address the socio-spatial and environmental problems which confront the majority of the world’s population.

The urban edge line and development edges policy in CoCT were attempts by the local authority to guide rational decision-making and achieve a particular vision of sustainable land development. Political decision-making, contrary to the urban edge and development edges policy, has, however, gradually undermined the credibility of these instruments and ultimately resulted in the termination of these instruments. This research reconstructs the decision-making circumstances, actors, values and outcomes leading to the termination of the urban edge in Cape Town. The purpose is to provide a critical analysis of the driving forces of spatial policy decision-making from a southern perspective. Furthermore, the research is an attempt to contribute to context specific theory on public policy and decision-making, and uses an urban growth management policy in Cape Town to demonstrate decision-making in spatial policy in the global south.

1.3 Aim and objectives

The main aim of the study is to determine the drivers and driving forces of spatial policy decision-making in Cape Town. This is achieved by means of the following objectives:

- Investigating theories relating to planning, politics and public policy decision-making, as well as theories of urban growth management;
- Measuring urban sprawl in Cape Town;
- As a non-empirical meta-analytical question determining what the current state of the CoCT urban edge line and development edges policy are and whether it has had a notable impact on the physical pattern of land development in Cape Town;

- Investigating how decision-making was done historically regarding land use applications that contravene the CoCT urban edge line and development edges policy and whether it was taken into consideration during decision-making;
- Questioning what contributed to the termination of the CoCT urban edge line and development edges policy; and
- As a non-empirical normative question, explore what drives spatial policy decision-making in CoCT.

1.3 Methodological framework

The research methodology, as explained in detail in Chapter 3, consists of both evaluation research, historical studies or narrative analysis. Evaluation research is often applied in implementation analysis to assess the outcomes of a specific programme or policy. It involves the use of predominantly qualitative research methods to describe and evaluate the performance of programmes in their natural settings, focusing on the process of implementation rather than on quantifiable outcomes (Mouton 2006).

The primary modes of observation in the evaluation research was semi-structured interviews and the analysis of land cover data. The strength of this approach lies in its ability to provide an insider perspective (Albrechts 2003). The limitations of this methodology relate to the potential bias exhibited by the observer or interviewer, as well as the inability of such research to draw strong causal inferences regarding programme benefits and impact (Mouton 2006).

Historical studies or narrative analyses attempt to reconstruct the past and the chronology of events. The primary mode of observation during this part of the research was the perusal of archived government documents, minutes, agendas and personal memos. As such, the analysis was retroductive in trying to make sense of history. The strengths of this kind of analysis is its ability to reconstruct the past through narrative techniques, elevating processes of change, while shortcomings relate to the limitations of the information contained in documentation and the limitations on the reader's understanding and judgement of the documentation (Trafford & Leshem 2008).

1.4 Chapter outline

The research follows the following outline:

Chapter 2 provides a perspective on the theories of urban growth management, planning and politics, and public policy decision-making. The basis of these theories are related to experiences in the global north throughout this chapter.

Chapter 3 outlines the methodological approach of the research.

Chapter 4 represents the first part of the historical review, describing the history of urban growth management in the global south. The chapter also reflects on institutional and political experiences in the global south.

Chapter 5 represents a second part of the historical review, presenting a comprehensive institutional history of urban growth management and governance in South Africa.

Chapter 6 constitutes the evaluation research. By making use of an urban sprawl index (USI), the extent of urban sprawl experienced in Cape Town since the adoption of the urban edge line is determined. It

also provides a spatial analysis of the extent of the original urban edge line and retrospective amendments to the urban edge line.

Chapter 7 represents the third part of the historical narrative study, tracing the decision-making process followed during two large-scale urban edge amendments, as well as the decision-making process leading to the termination of the urban edge line and development edges policy.

Chapter 8 synthesizes the results of Chapters 2 to 7 in order to draw conclusions on the drivers of spatial policy decision-making in CoCT.

1.5 Research limitations/challenges

In analysis of the extent of urban sprawl in Cape Town, as a measurement of the impact of the urban edge line and development edges policy, a clear link between the inception of the urban edge line and the change in land cover needs to be demonstrated. The availability of land cover data for years linking exactly to the dates during which the urban edge line and policy were in place proved unattainable. Therefore, said land cover data had to be substituted with land cover data available closest to the active years of urban edge line and policy. As such, this compromises the effectiveness of using the extent of urban sprawl as only measurement of the effectiveness of the urban edge line and policy.

Related to this point is the number of other spatial policies reflected in the CTSDP that also aim to contribute to a compact urban form and limited urban footprint, such as the densification strategy and transit-oriented development principles. When taking these policies into consideration, any change in land cover pattern that is observed through spatial analysis cannot exclusively be attributed to the success or failure of the urban edge line and development edges policy.

Council reports and minutes of council meetings provide accurate information on decisions that were taken in regards to land use and policy deviations, however, save for the individual experiences extracted from personal interviews, there exists no means of recapturing the essence of the (overt and covert) deliberations that informed the ultimate decisions taken. The study therefore relies heavily on the (admittedly subjective) experiences of the role-players interviewed to understand the political motive underlying specific actions and decisions.

CHAPTER 2: THEORIES OF URBAN GROWTH MANAGEMENT AND POLICY DECISION-MAKING

2.1 Introduction

Chapter 1 demonstrated the intent of this research to analyse decision-making processes in spatial planning policy, specifically decision-making that eventually lead to the termination of the urban edge line and development edges policy in Cape Town. As a starting point for such analysis, a discussion of relevant theory will be useful. In this chapter, prominent theories of urban growth management will be explored, specifically the history of the urban growth management discourse as well as the different permutations of growth management instruments applied historically and presently in the global north. As a second goal, the chapter will consider aspects relating to power, politics and planning, as a way of demonstrating through theory, how different powerful interests - politicians, planners or neoliberal roleplayers - can dominate planning processes and policy decisions. Finally, the chapter will explore the theory of different approaches to decision-making, as found in the policy-making environment. The purpose of this section is to highlight the differences in normative principles, decision-making power and ideals of each of these approaches in order to use these in evaluating a decision-making process. At the end of the chapter, it is hoped that a theoretical foundation will be established for the applied theory that will follow in Chapters 4 to 7. By way of understanding the theory of growth management, the rationale and purpose of Cape Town's urban edge policy will be contextualized. Similarly, decision-making processes in Cape Town can be evaluated parallel to theories of power and politics, and different approaches to decision-making.

2.2 Theories that inspired the evolution of urban growth management discourse

Urban growth management as an instrument to control and contain the physical expansion of cities can be traced back to the influential thinking of visionaries such as Ebenezer Howard, Patrick Geddes and Patrick Abercrombie from which it evolved further into a broader field of inquiry that considers the physical size and expansion of a city as a critical component in achieving urban efficiency. The following theories mark the beginning and evolution of the urban growth management discourse.

2.2.1 Garden city theory

At the root of the evolution of urban and regional planning lies the challenges presented by the unprecedented expansion of the early industrial city in the United Kingdom in the late nineteenth century, aided by great advances in transport and industry (Hall 2010; Fishman 2012; Cullingworth et al 2015). The recognition in the early twentieth century by Patrick Geddes and Patrick Abercrombie (Taylor 2010; Hall & Tewdr-Jones 2011) was that planning, at the time still predominantly design-oriented and reactive in responding to physical challenges, should extend beyond the limits of individual cities and encompass forward planning for entire regions or conurbations. The very size of cities was regarded as evil, and the spreading of the city over the surrounding countryside was seen as something that had to be prevented. The garden city concept initiated and propagated by Ebenezer Howard provided the basis for the post war plan for a series of new towns around London, constituting the first planned attempt at deconcentrated concentration. This model was aided by the 1947 Town and Country Planning Act making provision for the establishment of greenbelts around the major cities to limit the size and sprawl of major cities into the countryside and encourage the dispersal of development into new towns and other areas in the region (Hall 1996; Devas 1993; Ravetz 1986; Jones 1975). Simultaneously, the New Towns Act of 1946 and the Town Expansion Act of 1952 aimed to reduce pressures in the conurbation's centre by encouraging the movement of people to other localities; however, the official encouragement was greatly aided by substantial voluntary movements. The greenbelt approach was often

complemented by the construction of new towns (Cullingworth et al. 2015; Fainstein & Campbell 2011; Jun, Myung & Hur 2001), i.e. towns in which all aspects of development were determined before construction took place. The emphasis within these towns “was on the limitation of size and density, limitation of automobile dependency, and a belt of undeveloped land or open space surrounding the town” (Planned Communities 2001: 3).

The planning ideology at this time was characterized by utopian comprehensiveness – the suggestion that planning must turn its back on existing cities and create entirely new urban settlements. This kind of planning adopted what is referred to as an anti-urban aestheticism, or the idea of urban concentration as undesirable, combined with a strong desire to control the effects of change, population, employment distribution, excessive economic growth and physical expansion (Taylor 1998). The work by Howard and its manifestation through wartime reconstruction plans was rooted in the notion of making the world a better place, and by providing homes to soldiers returning home from war included a strong element of social conscience, health and welfare in planning (Welbank 2010). The planning process, in addition to being dominated at all stages by a small group of men, was a closed process as well, and citizen participation was only introduced much later. During this period, businessmen genuinely believed that adherence to the interests of merchants in the commercial city benefited all (Larkham & Lilley 2012; Sutcliffe 1980). Planning at this time was sensitive to social pressures and it was operating in a much less hostile atmosphere than today, with a lot less political rivalry surrounding planning issues, and less public and press scrutiny of what was going on. It was “planning by conviction, yet with sensitivity” (Welbank 2010: 75)

Sutcliffe (1980) criticized the model offered by Howard as having little appreciation of the historical evolution of modern, large cities or the needs and demands of society, and instead posed the work by Patrick Geddes as having a stronger relation to the philosophical and practical understanding of the totality of modern city life in all its complexity. Geddes was a firm believer in the analysis of the trends in modern urbanisation and was convinced that once acute observation of these trends has been achieved, he would discern the evolutionary steps of the city’s past (which had led to its present), or in other words, by *living we learn*. Only then, he believed, one can start planning for the future (Geddes 1949).

2.2.2 Theory of optimal city size

Ebenezer Howard envisaged self-contained communities of 30 000 surrounded by green belts under permanent agriculture. He proposed restoring people to the land, away from “crowded, ill-ventilated, unplanned, unwieldy, unhealthy cities” (1902: 133). Garden city theory was the first to introduce the idea of placing a limitation on the size of a city, motivated by the undesirability of too many people in an urban area. The idea was not so much the limitation of physical size but rather the limitation of the number of inhabitants contributing to health, sanitation and social problems in industrial towns and cities. The limitation of city size and the perceived benefits of restricting the number of inhabitants have subsequently been detailed in publications on the theory of optimal city size. Optimal-city-size theory claims that urban size is the fundamental determinant of urban location costs and benefits. The theory states that “the well-known indivisibility and synergy mechanisms, which are at the basis of economies of scale in cities, apply up to a certain urban size, after which diseconomies of scale due to congestion effects take place and decrease the average revenues of an urban location” (Richardson 1972: 31). The optimal city size is calculated as the result of the maximum difference between a location cost curve, defined as the land rent costs associated with urban size, and the aggregate agglomeration advantage curve (O’Sullivan 2009; Rietveld et al. 2003; Capello & Campagni 2000). An integral aspect of the problem of an optimal distribution of cities and whether or not it is possible to influence distribution by

government action is the question of whether there is an optimal city size, or even an efficient range of sizes.

Much of the early work on the optimal-city-size problem (Hirsch 1959; Duncan & Curzzort 1958; Clark 1945; Lomax 1943) concentrated on examining how the costs of urban government services varied with variations in population sizes of cities, and many observers have argued the case for the traditional U-shaped curve and derived the optimal city size from the bottom point of this curve. Estimates of the most efficient city sizes have varied widely in discussions by the following authors, as cited in Richardson (1972): 50–100 000 (Hirsch 1959); 100–150 000 (Lomax 1943); 500–1 000 000 (Duncan & Curzzort 1958); 100–200 000 (Clark 1945); 250 000–1 million (Redcliff-Maud 1960). There is somewhat stronger evidence that productivity (as measured by output per capita) increases with city size, primarily as a result of agglomeration economies. The however not wholly conclusive supports the view that 200 000–250 000 is a minimum city population for providing a comprehensive range of services. “It is arguable that a centrally planned economy would be required to attain a particular distribution of city sizes in a spatial framework but even in planned economies, attempts to halt the growth of large cities has not been very successful”¹ (Richardson 1972: 40).

During the 1960s and 1970s, the question of optimal city size tended to be expressed in a misleading way. The real issue is not 'optimal city size' but 'efficient size', which depends on the functional characteristics of the city and on the spatial organisation within the urban system (Capello & Campagni 2000). Economies of scale exist up to a certain city size. However, urban development generates conditions “leading to structural readjustments which may create new economic advantages, either by transforming to higher-order functions, or increasing external linkages with other cities” (ibid: 1485). Essentially then, the physical size of the city becomes less important than the ability of its internal organisation to function efficiently.

2.2.3 Compact Cities

The search for a liveable urban form has its origins in the earliest settlements. ‘Proto-urbanisation’, the earliest form of development, was found at sites such as Jericho, Abu Hureya, Mureybat and Catal Huyuk more than 10 000 years ago. True city form is thought to have developed on the alluvial plains of the Tigris and Euphrates in the area known as Sumeria, sometime between 4000 and 3000 BC (Soja 2000). Ever since these early days, attempts have been made to improve the quality of life in, and ultimately the sustainability of, towns and cities. Urban form of contemporary cities are perceived as contributing to environmental problems, affecting ecosystems, endangered species, water quality, travel behaviour, air quality, loss of farmland and open space, pollution and ultimately the global climate (Cervero 2009). As a result “sustainable development” emerged as a popular concept, motivating scholars and practitioners to seek forms for human settlements that will meet the requirements of sustainability (Jabareen 2006). Sustainable development is defined as the adoption of urban development that minimise both local resource consumption and pollutants (Breheny 2002). Owens (1992), as referenced by Hall (2010: 41), suggested that a sustainable urban form would have the following features:

- At a regional scale, it would contain many relatively small clustered settlements to form larger settlements of 200 000 and more people;
- At a sub-regional scale, it would feature compact settlements, probably linear or rectangular in form, with employment and commercial opportunities dispersed to give a ‘heterogeneous’ i.e. mixed-land-use pattern; and

- At the local scale, it would consist of sub-units developed at pedestrian/bicycle scale, with medium to high residential density, possibly with high linear density and with local employment, commercial and service opportunities clustered to permit multi-purpose trips.

The debate on sustainable development has been divided between proponents of a centrist versus proponents of a decentrists urban form. Decentrists and centrist views of urban form have long histories; however the motives driving the historical debates differ somewhat from those driving the current debate. The mainstream concern in both ends of the debate has been the quality of life, and also somewhat less importantly, the aesthetics of an urban area. Conscious practical town planning developed in Europe and North America in reaction to the poor conditions of towns and cities of the Industrial Revolution. The planning responses were mostly in the form of decentralised solutions, and the idea of planning away from disease and congestion such as expressed by the Garden Cities movement discussed earlier.

By 1935 however the decentrists and centrist viewpoints were firmly rooted in the visionary ideals of Le Corbusier (an extreme centrist) and Frank Lloyd Wright (a champion decentrists). Both La Ville Radieuse (Le Corbusier) and Broadacres City (Wright) mark a reaction to the ideas put forward by Howard. Le Corbusier’s solution to the challenges of the industrial city was to increase rather than reduce urban densities: “to decongest the centre of cities by increasing their densities” (Hall 1988:207). High(er) tower blocks would thereby increase open space and improve circulation. La Ville Radieuse was a collectivist city, with everyone living in giant high-rise blocks in apartments built according to specific norms (Breheny 2000). Wright’s ideas however was born from an acceptance of the inevitable: that the motorcar and electricity would enable increased spread out into the countryside. He saw Broadacres City as an opportunity to take people back to the land, the basic living unit becoming the farm homestead, with factories, schools and stores scattered across the agricultural landscape (Breheny 2000).

The emergence of global warming and loss of open countryside in the environmental sustainability debate during the 1980s have given sway to the centrists in the current debate on sustainable urban form (Breheny 2000). Compactness refers to urban contiguity (and connectivity) which suggests that future urban development should take place adjacent to existing structures (Wheeler 2002). Applying principles of compaction means containing further urban sprawl (rather than reduction of present sprawl) and intensification of activity by increasing the density of development and activity (Jabareen 2006). This includes development of formerly undeveloped urban land, redevelopment of existing developed sites, subdivisions and conversions (Williams et al 2000). Table 2.1 summarises the three key elements of compact cities:

Table 2.1: Three key elements of compact cities (OECD 2011:15)

Dense and contiguous development patters	Urban areas linked by public transport systems	Accessibility to local services and jobs
– Urban land is densely utilised	– Effective use of urban land	– Land use is mixed
– Distinct border between urban and rural land use	– Public transport systems facilitate mobility in urban areas	– Most residents have access to local services either on foot or using public transport
– Public spaces are secured		

Advantages of compact urban development can be categorised into four broad themes (Williams et al 2000; Breheny 2002). These are related to:

A. Contained and compact urban development yields increased rural protection

Urban form and spatial structure are strongly related to resource use. The arrangement of land use directly affects the consumption of land for urban development (Fertner & Grobe 2016). Between 1990 and 2006 Europe's population grew by 7%, while the urban area in the same time grew by 37% (Fertner 2012). Most areas that are converted to urban areas are agricultural land with fertile soils. Higher densities of dwellings, jobs and other activities can reduce the need for new urban land, and by encouraging brown field development contribute to urban revitalisation (Williams 2004). Compact city development "can also reduce fragmentation of the remaining areas, supporting more efficient agricultural practices, better connected nature areas and higher recreational potential" (Fertner & Grobe 2016: 69).

B. A compact city structure as presented by increased social interaction and ready access to services offers improved quality of life

It is argued that the compact city, at its best, provides a superior cultural, social and economic base for society (Jenks & Burgess 2009; Burton et al. 2003). A study investigating the degree of interaction and participation in community activities by different communities established a strong relationship between higher density living environments and quality of life (Karuppannan & Sivam 2012). Research that modelled the health benefits of a compact city approach in Melbourne, Boston, Sao Paulo, London, Copenhagen and Delhi found a demonstrable reduction in chronic diseases and road trauma as a result of reduced travelling distances offered by the compact city (Stevenson et al 2016).

C. There are environmental benefits arising from reduced energy consumption in higher density living environments

One of the principle criticisms of urban sprawl is that it undermines the cost-effective provision of public services (Bierman 2009; Porter 1997; Nelson et al 1995; Kelly 1993; Knaap & Nelson 1992). In 2003 Carruthers and Ulfarsson conducted empirical research to understand the relationship between urban sprawl and the cost of public services. The study found that the per capita cost of most services decline with density and rises with the spatial extent of urbanised land area. This reinforces planners' claim that urban sprawl undermines cost effective service provision, and lends support to growth management and smart growth programmes aimed at increasing the density and contiguity of metropolitan areas. Besides saving land and transport energy, compact cities can also increase the efficiency of infrastructure in general where less meters of infrastructure is necessary to supply the same amount of users (Fertner & Grobe 2016). Site level research has indicated that compact, multi-family apartment blocks provide the lowest CO² emissions per capita (Tereci, Ozkan & Eicker 2013).

D. Higher density living environments will mean a reduction in greenhouse gas emissions resulting from diminished number and length of trips by modes of transport that is considered harmful to the environment (Williams, Burton & Jenks 2010; Breheny 2002).

Compact cities claim to be able to reduce the average travel distance by supporting mixed use development in neighbourhoods allowing for short distances between different activities. Furthermore, compact cities also allow a more sustainable modal split as it enables increased use of non-motorised transport (Fertner & Grobe 2016). Australian academics Newman and Kenworthy (1989) have undertaken research in a number of large cities around the world, consistently finding a strong correlation between higher densities and lower fuel consumption. The results suggested that the demonstrated reduction in fuel consumption and emissions warrant policies to promote urban compaction to aid in establishing public transport. Other studies evaluating similar cases yields similar results (Clarke 2013; Naess 2006; Schwanen, Dijst & Dieleman 2002). Cities with the lowest densities

and hence the highest consumption rates were in the United States. European cities were found to be relatively fuel-efficient and Hong Kong by far the most efficient (Breheny 2000).

Not surprisingly, American scholars such as Gordon and Richardson (1997) have argued against the compact city ideal as sustainable solution based (amongst others) on the following reasons:

- Low-density settlement appears to be the overwhelming choice for residential living;
- Continued low density residential preferences make high-capacity transit systems unattractive and therefore wasteful;
- The traffic consequences of suburbanisation are benign;
- The economic and resources efficiency of compact development has never been adequately demonstrated;
- High-rise or dense settlement patterns is expensive and only a worthy alternative when the costs of communication and transportation is particularly high; the reality is that these costs have been declining over the years and the trend is for it to continue decreasing; and
- The major countervailing force to these trends derives from cities' (and their governments) need to compete in order to survive in an age of increasingly mobile capital. Local governments' reliance on residential tax income encourages a more dispersed settlement pattern.

While one of the key benefits acclaimed by the compact city discourse is social cohesion and the buzz and ambiance found in the compact cities of Europe, the argument exists that the exodus from the city, the processes of extensification rather than of intensification has been in evidence for 50 years, and the basic reason for this is that it met people's personal aspirations. In a non-interventionist, market-led society like the United Kingdom (UK), such aspirations were dominant, and the voluntary exodus from cities over this period far exceeds any planned process (Welbank 2010). Empirical evidence from British cities also indicated a negative correlation between home satisfaction and density, suggesting that the social sustainability and quality of life attributes ascribed to denser compact urban environments may be inaccurate (Dempsey, Brown & Bramley 2012; Bramley et al 2009)

Research in Australia argues against the compact city approach as an attempt to improve transport efficiency (Stretton 1995). Stretton makes the case for a radical transformation of the Australian wasteful, pollutant and accident-prone urban transportation system and encouraging Australians to get rid of their cars rather than their suburban houses. The best of European cities offer some of their citizens an interesting and attractive social urban life. However in Australia, there are only a few patches of that. Stretton (1995) further claims overwhelming evidence that Australians in all stages of life want public and private space more than dense urbanity.

Of all the arguments for the compact city, one which require further exploration is the claim that the compact city is a socially equitable city. When looked at in its entirety, that is, as a combination of all the different indicators, social equity has a limited relationship with compactness. It is however likely to have a negative relationship with compactness for five reasons: Less domestic living space for poorer communities; limited opportunities for affordable housing in a compact city environment; poor accessibility to green space; increased crime levels; and higher death rates from respiratory disease resulting from overcrowding. Conversely, some of the benefits in aid of socio-economic equity include reduced social segregation and a greater scope for walking and cycling (Williams et al. 2000).

The term compact city has traditionally been associated with a monocentric city structure and has often been placed against city forms exhibiting urban sprawl or decentralisation. However Soja (2002) argues that "sprawl is no longer what it used to be: the very nature and meaning of both urban sprawl and

sustainable development have changed so dramatically since the 1970s that even the best conceptualisations and practices associated with them must be significantly rethought and revised” (Soja 2002: 34). The sheer scale of the changes from rural to a predominantly urban world population leads to some questions about the adequacy of existing knowledge and the paradigms of urban sustainability. It has been increasingly noted that many metropolitan areas are in fact polycentric urban structures, thereby questioning whether the compact city can only be applied to a monocentric urban structure, or if it can also be relevant to the polycentric urban structure that is more common in the modern urban context (OECD 2011).

Since the early 2000s there has been a recognition of the changing patterns of metropolitan hinterlands, not characterised simply by growth in terms of population and urban fabric, but involving a wider array of economic functions and qualified jobs. The pattern of movement away from city centres may be called ‘concentrated decentralisation’, and it is generally recognised as having a long-standing history. Its older residential manifestation is suburban sprawl, and in new towns built around manufacturing plants that were often located there because of water, power or extractive resources (Jenks et al 2008). Its newer spatial manifestations are ‘edge cities’ (Garreau 2001) and the growth of business clusters outside central cities. These new growth poles are found in a variety of spatial forms and create new intermediate zones with new centralities and peripheries (OECD 2011). The concept or phenomenon of polycentrism has become increasingly important within the current urban debate (Sinclair-Smith 2015). It can refer to different scales of the built environment, whether at global, regional or city level, and has been characterised by a varied terminology – e.g. polycentric regions (Munter 2011; Cowell 2010; Hall & Pain 2009), polycentric urban systems (Brezzi & Veneri 2015; Maly 2015; Vasanen 2013), multimodal urban networks (Gil 2014) or polycentric networks (Burger, Van der Knaap & Wall 2014; Meijers 2005). At a large, regional scale it has been argued that the polycentric mega city region is the new phenomenon that is emerging in the most urbanised parts of the world. It has been defined as “a series of anything between ten and 50 cities and towns, physically separate but functionally networked, clustered around one or more larger central cities, and drawing enormous economic strength from a new, functional division of labour” (Jenks et al. 2008: 51).

2.3 Urban growth management context

As introduction to the discussion on urban growth management, a definition of such policy action is essential. In contrast to zoning, which is passive and static, urban spatial growth management is said to be active and dynamic (Chinitz 1990). Nelson and Peterman (2000: 278) define growth management as “a conscious government program to influence the rate, amount, type, location and or cost of development”. Growth management is differentiated from growth controls in the sense that the latter seeks to impose limits on the pace and extent of growth, whereas the former entails a softer approach of channelling growth and managing its impacts (Nelson & Peterman 2000).

Other attributes of growth management describe its attempt to account for the public interest. True growth-management programs, it is suggested, will anticipate in advance the realistic need of regional development in terms of land supply, location and public facilities. Once adopted, growth management plans are “intended to send clear, unambiguous signals to the development community on where, when and how market needs will be accommodated” (Nelson & Peterman 2000: 281). The envisaged result is improved decision-making by both public officials and the development community. To taxpayers, growth management thereby promises more efficient delivery of public facilities and services, which equates to lower costs per unit of delivery. To developers, growth management promises more certainty in where development will be accommodated and at what scale (ibid).

The effectiveness of policies as a means to shape urban growth is dependent on whether the relevant policies can be brought together in one modus operandi – a framework for steering public policy – and whether such a framework becomes a recognised basis for coordinated action by all levels of government in policy decisions relating to urban development (Nelson & Sanchez 2005).

A number of strategies have been developed and employed to achieve compact urban development. Containment of urban areas, supported by sustainable (public) urban transportation, with the aim of promoting compact and contagious urban development patterns that provide easy access to public services, “has been one of the most successful compact urbanisation strategies” (Nelson & Dawkins 2004: 423). Another containment strategy sees the direction of public infrastructure investment and strict development regulation to ensure compact and intense urban development. Containment instruments can be unbounded (such as in the case of an urban services boundary), bounded (development within a specific boundary or edge) or naturally bounded (where development is restricted by geographical constraints) (Nelson, Dawkins & Sanchez 2004).

2.4 History of urban growth management discourse in the global north

A number of different instruments to limit the physical extent of urban expansion is employed as part of urban growth management approaches in different parts of the world. This section provides an overview of the most widely used of these instruments as they were and are currently used in cities of the global north.

2.4.1 Greenbelts

Greenbelts mark the earliest attempts at controlling the post-World War II industrialising city (Amati 2016). This instrument was driven primarily by central governments at the time in the form of a demarcated strip of green/undeveloped land beyond which no further growth would be allowed. The green belt was part of the post-World War II package of English regional policies that were intended to protect farmland, to separate the major conurbations from surrounding settlements and to redistribute population from the south-east to other parts of the country. Greenbelts were usually implemented as tight bands of green space, either for permanent open space or for working landscapes around an existing urban area. The earliest greenbelts were established in the UK in the late 19th century as introduced by the Garden City pioneer Ebenezer Howard. As part of the UK physical land use planning system and Town and Country Planning Act, promulgated in 1947, this country formalised the implementation of greenbelts with the primary aim of urban containment (Horn 2010). The greenbelt approach was often complemented by the construction of ‘new towns’ (Jun et al 2001), i.e. towns in which all aspects of development were determined before construction took place. The emphasis within these towns was on the limitation of size and density, limitation of automobile dependency, and that it had to be surrounded by a belt of undeveloped land or open space (Planned Communities 2001). The first new town was established in England (Letchworth), and later the ideology spread to the United States (US) with the establishment of Radburn. Some authors note the continued success of the greenbelt approach in the UK in protecting land. Jones (1975) for example, observed the rate at which agricultural land was converted to urban use averaging 25 000 hectares per year during the 1930s, as opposed to 15 000 hectares per year during the 1950s and 1960s (only 60 % of the earlier level), despite the steady intensification of pressures on urban land over this period.

The implementation of greenbelts in many countries can be regarded as one of the most famous attempts to regulate urban growth. The popularity of green belts among planners during the 20th century was due to the alignment of their attributes with some of the assumptions that underpinned

modernist planning (blue print planning), such as the fact that strict divisions between different land uses could easily be drawn, and planners' actions could be justified by normative conventions and a search for universal truths (Amati 2008).

A number of other European cities have also adopted the greenbelt approach (e.g. London, Copenhagen and Amsterdam). In Korea, a greenbelt in which construction was completely prohibited, was established in 1971 around the entire city of Seoul (Britz & Meyer 2008). In this case, five new towns were also constructed between 1989 and 1995, adding 330 000 housing units to the city and accommodating about 1.16 million people. San Francisco, Ottawa, Adelaide and Dunedin (New Zealand) have also implemented greenbelts in an attempt to curb urban sprawl. The greenbelt in Ontario covers approximately 730 000 hectares of environmentally sensitive land. This area is roughly 46% larger than the London Metropolitan Greenbelt (Eidelman 2010). These cities have experienced varying degrees of success in curbing urban growth, and critics point to the fact that the implementation of a greenbelt, in many instances, encourages leapfrog development, an undesirable development pattern of non-contiguous urban development. This leads to greenbelts ultimately acting as land reserves for future highways, where people living in leapfrog developments needs to commute very long distances to reach the inner city (Harford 2007). House builders, businesses and campaigners for affordable housing have long blamed the greenbelt for being the epitome of restrictive planning policy, and for a shortage of building land and resulting high property prices (Prior & Raemaekers 2007). The UK planning profession has itself argued that the present policy is too inflexible (Prior & Raemaekers 2007). In addition, the experience of greenbelts in the examples mentioned before were that satellite communities/new towns located outside greenbelt areas create a range of other inefficiency problems such as the drastic increase of travelling distances to employment opportunities in city centres (Harford 2007; Memon 2003).

Findings by Prior and Raemaekers (2007) attribute the success of the greenbelt approach as a tool for containing urban development as being contingent on the relationship between central government and the market, as well as on prevailing economic conditions for land development. This relationship is complicated by the consequences of the potential misalignment between spatial planning objectives and the contemporary scope for planning authorities to intervene in capitalist land markets to achieve those objectives (Prior & Raemaekers 2007).

2.4.2 Urban edges/urban growth boundaries

Another example of growth management is seen in urban edges or urban growth boundaries (UGBs) as deployed in a number of states in the USA (Oregon, Iowa, California, Tennessee, Washington and Boston), cities in the UK, Sydney and Copenhagen (Ball et al 2014; Sinclair-Smith 2014; Kim 2013). These edges or boundaries can be defined as institutional boundaries with the sole purpose of containing physical development and sprawl and re-directing growth towards a more integrated, compact and arguably efficient urban form. Together with such edge, "strategies to ensure integration and compaction are advocated to ensure the development of quality, well-maintained urban environments" (Horn 2010: 51).

Oregon in the USA was a pioneering state in formulating, adopting and implementing state-wide growth management policies. It is arguably the state with the most rigorous implementation of such policy. The Senate Bill 100, passed by the state legislature in 1973, established a mandatory planning programme under the direction of the Land Conservation and Development Commission. It required every Oregon city and county to adopt a comprehensive plan that met 14 original state-wide goals, thereby capacitating cities and counties to assume responsibility for urban growth management. These goals

address, inter alia, forest and farmland protection, housing, economic development, recreation and transportation. Goal 14, 'urbanisation', seeks to “provide for an orderly transition from rural to urban uses”, and requires every city to adopt an urban growth boundary (Britz & Meyer 2006:210). In Oregon, urban growth boundaries are not permitted to include more land than the locality needs for future growth, thereby encouraging compact development within the boundary and prohibiting the development of land on the fringes of an established community (Attkisson 2009).

Another example of an urban growth boundary is to be found in the Netherlands (VROM 2001). Using very detailed information regarding occupation, economic development, the quantum of houses built, etc. over the last 25 years, projections are made by local authorities to accommodate the natural population and economic growth in the planning horizon of 2030 (Du Plessis 2004). Cities and local authorities then apply a system of red and green contours. Red contours are boundary lines that remain in place for ten years and demarcate the area around existing towns and cities within which all future urban development must take place. Local authorities recommend the location of these lines to provincial governments who have the final say in their exact location. It is proposed that red contours should be supported by positive planning of what is to happen within the demarcated areas. In order to ensure that the principle of spatial quality is adhered to in new developments, the quality of development to take place in the demarcated areas is also specified. Green contours demarcate natural, cultural and heritage areas within which urban development may not take place. The demarcation of these contours is the responsibility of provinces. National government does, however, have the right to demarcate the contours where it is not undertaken by a provincial government. In order to ensure implementation, the Minister of Housing, Spatial Planning and the Environment has to report on the progress of the implementation at least once every two years (VROM2001).

2.4.3 Urban services boundaries

An urban service boundary (USB), as witnessed in Minneapolis-St Paul since the early 1970s, denotes the edges of an urban service area and is typically more flexible than an urban edge. It denotes a line beyond which a city has decided that its infrastructure, typically sewer, water and electricity, should not extend. This implies that infrastructure must be in place before development is permitted. In many metropolitan areas in the US, urban service areas support a tiered system, a system that directs public infrastructure into new areas in a particular sequence in order to eliminate leapfrog development, encourage orderly urban expansion, and reduce the cost of public infrastructure (Du Plessis 2004). Urban services are often also tied to tools adopted by municipalities to restrict or prohibit new urban growth – unless that growth is served by roads, public water, public sewers and other urban infrastructure. Much of the motivation for adopting these tools is financial, not geographic – that is, they seek to reduce the cost of infrastructure to the communities hosting the growth (Pendall & Martin 2002).

As part of its land use policies and laws, the state of Florida (USA) has mandated all local governments to adopt a growth management system that includes a requirement that ties capital improvements to local land use planning, and provides that new development can occur only when adequate public facilities exist to support such development, thus adding timing, sequencing and phasing components to traditional zoning laws (Holcombe 2014). “Effectively, developers must wait for the expansion of the requisite underlying utilities infrastructure before developing new land, unless the developers choose instead to expend their own capital for such utilities expansion” (Attkisson 2009: 985). Florida's concurrency requirement fights sprawl by encouraging new development to occur in areas that already have the necessary public facilities in place. Although developers theoretically could build on the fringes of a community, the concurrency requirement “substantially delays them from doing so because they

must first wait for the extensions of the required public facilities” (Attkisson 2009: 1001). As a result, Florida's system incentivizes developers to develop land within the existing urban core and to maximize the use of currently available public facilities, while simultaneously discouraging scattered development in rural areas (Attkisson 2009).

Because of their success in limiting sprawl, Oregon's and Florida's systems have been noted to “provide excellent models for other states to consult when trying to counter sprawl within their own boundaries” (Attkisson 2009:998). A critical success factor cited in Oregon’s success is the requirement that local governments coordinate with neighbouring localities and enact policies consistent with both the local and state comprehensive (National Association of Realtors 2001). When an individual local community draws a UGB within its own borders, constrains future development to within that boundary and establishes rules and regulations within the UGB that are designed to slow local growth, the local UGB can result in higher density and less extensive new growth within that community as long as neighbouring/adjacent local communities adopt the same ideology. In reality, however, where individual communities adopt UGBs in isolation from their neighbours and competitors, new growth (and new revenue) is simply accommodated in neighbouring communities with less stringent spatial policies. One way of circumventing this issue, is through the introduction of a tax-based sharing programme best-known in North America, specifically Minneapolis-St Paul. Since 1971 (when the programme was initiated), the programme makes provision for the inclusion of the net gain in local tax revenues generated by industrial and commercial property only. Of this net gain, 40 % is allocated into a pool and distributed among the local authorities according to a formula that takes into account the population and fiscal capacity of the local authority. This mechanism reduces the negative implications of competition among local authorities on land uses who pay high municipal taxes. The participating local authorities can be expected to look more favourably on dense residential development, and on the conservation of open space (Razin 1998).

Another critical success factor for UGBs is therefore how stringently growth is restricted outside the UGB line. For example, in Florida developers who are willing to pay for the necessary infrastructure can develop new projects outside the regional UGB (if they receive local planning commission approval). In Oregon, most development outside the regional UGB is prohibited, even if developers are willing to pay the costs of all the additional infrastructure required (APA 2002).

The experiences of urban growth boundaries are reported with mixed results. The results accomplished by the urban growth boundary surrounding the Portland, Oregon (USA) metropolitan area are documented as “a dramatic increase in both the volume and proportion of multiple family and attached single-family housing, as well as an increase in the proportion of smaller and more affordable developed, single-family lots – all of which indicate an increase in the density of the region” (Attkisson 2009:998). Additionally, a reduction in both total vehicle miles travelled and commuting times have been observed (Attkisson 2009).

However, a common critique on UGBs relate to its tendency to increase price pressure on land within the boundary. This causes an increase in the home values of inner-city neighbourhoods, ultimately leaving poor households to be displaced from such areas because they cannot pay required taxes, and forcing them to move further out of the urban area where affordable housing may or may not be available (National Association of Realtors 2001). In effect, “the UGB confers a market advantage on the owners of land within the UGB. Outside the UGB, it can be expected that the value of property will decrease because of the loss of its potential to be developed” (National Association of Realtors 2001: 4).

2.4.4 Smart growth

According to smart growth, an American growth management theory, growth is not to be stopped in its tracks, nor necessarily slowed down. The goal is rather to manage urban sprawl by prioritising intensification and mixed-use development, providing transportation alternatives and housing choices, and preserving natural heritage features. At the same time, targeted economic growth is promoted to reduce per capita consumption of land and energy, the cost of infrastructure is lowered and transit is made more viable (Eidelman 2010). The goals of smart growth in the American growth management theory are to:

- Achieve a unique sense of community and place by mixed land uses;
- Establish communities where transportation options include walking, biking and mass transit;
- Decrease traffic congestion;
- Slow low density sprawl;
- Preserve and enhance natural and cultural resources – protection of open space, wetlands and prime agricultural land;
- Promote urban revitalization and public health; and
- Decrease taxes and costs of infrastructure (McCarthy 2017; McMillan & Lee 2017; Amal 2013; Resnik 2010; Dierwechter 2008).

Smart growth calls for very specific kinds of geographical solutions wherein greater urban density, fixed urban edges, transit-oriented development, protected forests and farms and mixed uses emerge alongside and from an engaged respected and enlightened citizenry who begin to see the city region as a new kind of potential community (Dierwechter 2008: 67).

Tools and techniques employed to achieve smart growth are (Dierwechter 2008):

- Mandatory comprehensive plans as collective vision;
- Concurrency provisions and development impact fees – a mandatory requirement that development may not continue unless infrastructure capacity and specific urban services are in place to service the new development;
- Development impact fees to fund the indirect off-site costs of new private sector development; and
- Urban and regional growth boundaries – liberal critics of UGBs have argued that their success in reducing sprawl distort “natural” market forces by creating an artificial supply of land, which ultimately drives up housing prices.

Smart and sustainable growth is also a central priority presented in the European Commissions' communication, *Europe 2020: A Strategy for Smart, Sustainable and Inclusive Growth*, accepted by the other EU institutions as the new reform policy (Basse 2010). In this context, the meaning of smart growth goes beyond the containment of urban growth to include aspects of strengthening knowledge and innovation as drivers of future growth. The recommended guidelines on smart growth, given by the European Council, include (Basse 2010: 67):

- Addressing the significant needs for investment in infrastructure to comply with environmental legislation in the fields of water, waste, air, nature and species protection and biodiversity;

- Ensuring that attractive conditions exist for businesses and their highly skilled staff. This will be ensured by promoting land use planning (which reduces urban sprawl) and by rehabilitating the physical environment;
- Promoting, in addition to the investment in sustainable energy and transport covered elsewhere, investments that contribute to the EU-Kyoto (51) commitments; and
- Undertaking risk prevention measures through improved management of natural resources, more targeted research and better use of Information and Communication Technology's (ICTs), and more innovative public management policies including, for example, preventive monitoring.

2.4.5 Summary

Growth control mechanisms that place a limitation on the physical extent of cities, usually represented as part of a master or spatial planning, have long moved beyond the greenbelts and garden cities championed by Abercrombie and Ebenezer Howard and later the New Towns Act of 1946 (Jones 1975). Today the management of urban growth is considered a comprehensive approach (reminiscent of the esteemed smart growth approach witnessed in the United States)(McMillan & Lee 2017; Amal 2013; Resnik 2010; Nelson & Sanchez 2005), based upon a variety of spatial strategies that could include lines/edges of no growth and urban services boundaries, the development of public transport corridors, support of polycentric nodes and densification. Usually closely associated with urban growth management is normative principles to achieve urban containment described by Jabareen (2006) as deliberate usage of planning, regulatory and fiscal authority of the state and local governments to influence the pattern of growth to reduce its impact on land consumption. Urban growth management and urban containment are claimed to be responsible for urban development patterns that support environmental conservation, quality of life, the protection of the taxpayer, an efficient urban form, efficient public transportation, urban revitalisation, environmental and social justice, and the delivery of affordable housing, amongst others (Williams 2005; Bengston et al 2003; Breheny 2002; Williams et al. 2000). The implementation framework of this approach or set of strategies is often accompanied by a variety of planning instruments such as development moratoria, public facility ordinances, small lot zoning, interim development regulations, rate of growth controls (Bengston et al. 2003), tax increment financing, bulk services contributions, fast-tracking of land development applications in certain locations, transfer of development rights, urban development zones and inclusionary housing/zoning (Horn 2010).

In the US, for a variety of cultural, institutional or environmental reasons, land use planning, the traditional way of managing urban sprawl, takes a decentralised and passive approach. In other words, the system of land use controls in the US is "largely reactive, both the timing and location of growth are substantially dependent on initiatives from the private sector" (Blair 2001: 110). Research found that a mix of regulatory tools and voluntary tools contributes to the effectiveness of growth management programs. Planners and managers need to consider using tools that influence market forces and private developers' decisions (Blair 2001). The combination of vague principles and the extraordinary degree of discretion in the decision-making process makes lawyering ability a critical factor in the land-use field (Kushner 2000).

Serious questions remain about whether or not state-based growth management produces its intended effects, even as it continues to gain momentum and political support. In Florida, for example, growth management have had limited success as a result of the state being unable to facilitate the requisite infill. In Georgia, growth management approaches could not adequately be enforced by the state

(Carruthers 2002). In this regard, referring to a political culture favouring private development, Dierwechter (2008) remarks that in growth management, economic realities drive many of the local political responses. Considering therefore that the fate of any urban growth management policy lies at the hands of political decision-making, theories that explain political decision-making processes will be elaborated upon in the next section.

2.5 Theories of planning, politics and power

The last three decades have witnessed significant changes in how urban politics relates intellectually and practically to the discipline of urban planning. Where planning practitioners and scholars often chose to “project planning as a value-free field of practice with a vision of improving public welfare and solving urban problems” (Faludi 1973: 111) these viewpoints increasingly fall short in obscuring the political nature of urban planning both through formal and informal processes (Miraftab 2011). Processes of planning decisions where “planners act as facilitators of state agendas for social control, or through zoning and urban renewal projects that systematically displace disadvantaged populations have brought urban politics and informal politics to the centre stage of planning” (Miraftab 2011: 888). Furthermore, planning decisions by local municipal governments have contributed to a decentralised shift from a national political arena to a local one in cities and neighbourhoods. This shift to local politics also broadens the formal definition of urban politics to include non-professional actors in the planning field as well, and contribute to exposing informal politics involved in planning decision-making. These informal processes are often characterised by interest-vested processes and deal-making outside the formal channels of official planning (ibid). This section provides context on critical theories in power and politics as it bears relevance to urban spatial planning and urban management.

2.5.1 Governance and steering

The traditional view of governance as emphasising the centrality and autonomy of state agency has been transformed to no longer imply forms of action and guidance-and-control of government functions alone. Instead, the management of public issues is now seen as premised upon an extended but loose framework of interdependencies between governmental and non-governmental actors (Gualini 2010: 60-61). Governance in this sense is defined as a public activity concerned with the resolution of (para)political problems under new emergent configurations of actors, organisations and institutions that structurally involve decentralised non-state actions and initiatives stemming from economic and social activities (Jessop 1995: 317). Related to the concept of governance is the notion of ‘steering’, originating from the social and political sciences. The concept of steering appears to have two distinct discourses: on the one hand it is viewed from the system-theoretical and cybernetic paradigm of societal control where the operation of social systems is considered to be relatively independent from the agency of concrete actors (Gualini 2010). From a policy analysis perspective, steering is however seen as increasingly actor-centred, emphasising politics as the expression of normative goals by the state towards collective welfare (Mayntz in Gualini 2010). However, mechanisms for regulating issues of public interest extend beyond the capacity of state structures, and is rather defined by institutional regimes in the larger public sphere (Hollingworth & Boyer 1997). Therefore, political steering in this sense is no longer identifiable with state action within traditional political-administrative structures, but is rather the result of a combination between different forms of state and non-state regulation in the functioning of complex sub-systems (Gualini 2010).

Governance in this sense needs to be understood as a mix of different forms of regulation leading to the ability to recognise common interests between state governance/regulation and the objects of governance/regulation (Jessop 1995).

2.5.2 Power and planning

Max Weber conceived power as either legislatively determined or bureaucratically derived and within this distinction differentiated between power as authority and power as coercion. He argued that only power as authority is legitimate and this kind of power can be achieved through the force of a leader's charismatic personality, through customs or through rational legal processes (Adjei-Poku 2018; Wilkinson 2004). Weberian power represents the hierarchy of bureaucratic institutions, and is presumed to be stable, however, more contemporary views regard power as obtained through relations. Power in this form does not exist per se and is not possessed, but it is the effect of social relations and interactions as it takes place between individuals, institutions, groups and states (Putz 2011). This definition of power originated in the work of Michel Foucault. Power to Foucault (1980:76) is a general matrix of force relations at a given time, in a given society, "intentional and non-subjective". The emphasis in his research on power relationships shifts from the question of 'who' has the power to 'how' participants attempt to exercise power and the skills and resources they employ in doing so.

Firstly, unlike the Weberian definition of power where power is possessed by formal institutions, individuals or classes, Foucault views power as subjectless and constituted through discussion. Secondly, the influence and operation of power in society is the norm, and not the exception, and this power can have positive and negative consequences. Foucault considered knowledge and power to be the same since he argued that knowledge is obtained through systems of communications, records and accumulation – which is power in itself (Foucault in Adjei-Poku 2018). Foucault also offered analysis of the power and legitimacy of government officials and other elected representatives by referring to the tendency of power to make the powerful less aware of their own limitations (Gordon 1980). He suggests that in order to move towards progressive change, people have to explore and build upon the qualities of human discourse in order to contribute to the way in which knowledge is produced and represented at the specific point where a localised power-discourse is present. In this regard, struggle is seen as a positive tool towards examination of power relations, but also for getting powerful messages across (Hillier 2002).

Another definition of power comes from the understanding by Jurgen Habermas that power constitutes the ability to prevent other individuals or groups from realising their interests (Habermas 1991). The centre of Habermas' theorising is a theory of communicative action based in linguistic communication. Habermas (1976) emphasises the role of actors attempting to reach mutual understanding. Mutual understanding, he argues, leads to rational consensus. Communicative rationality therefore represents how actors reflect on their background assumptions about the world, question them, and collectively negotiate new norms (Hillier 2002). Communicative action serves to free participants from dominating powerful oppression, and postulates that true power lies in the basis of trust built in collective reasoning (Hillier 2002; Hoch 1992). The theory of communicative action therefore suggests that "outcomes negotiated consensually through processes of uncoerced reasoned debate with all participants working collaboratively, are more readily accepted by participants" than those imposed by the bureaucratic system (Hillier 2002:33).

Both Foucault and Habermas accept that members of social groups' actions and speech are situated within a specific context of historical and social conditions varying in resources, advantages and status, thereby making up their personal identities (Hillier 2002). Both believe in the importance of language and communication in conferring power, with Habermas emphasising the importance of mutual understanding and consensus in aiding empowerment, and Foucault suggesting ways of intervening how knowledge is produced and constituted (Hillier 2002). The concept of power-knowledge is drawn from Foucault's work where he was concerned about the interrelationship between power and

knowledge. Foucault reframed the concept of power: power does not belong and cannot be held at a particular point either by one individual or the sovereign, the state, or through the act of domination of one over another. Rather, power is 'employed and exercised through a net-like organisation' (Foucault 1980: 98). "Power is relational and operates through elements of apparatus, including discourses, strategies, technologies, institutions, regulatory decisions, laws, administrative measures, scientific statements, philosophical stances, etc. The apparatus is embedded in the exercise of power, linked with and supported by types of knowledge" (Foucault 1980: 196). Foucault contended that: "[i]t is not possible for power to be exercised without knowledge, it is impossible for knowledge not to engender power" (Foucault 1980, 52).

Abundant literature exist on the relationship between strategic spatial planning and power (see for example Albrechts 2003; Hillier 2002; Flyvberg 1998; Friedman 1992; Forrester 1982). A critical theme in urban politics and planning is the tension between expert knowledge (discourses of rationality) and lay or everyday knowledge (Bridge and Watson 2011). The move from a knowing planning tradition to a more deliberative one has been evident since the late modernism (Amin 2011). Flyvberg (2012) refers to modern democratic constitutions as separating rationality and power – first we must know about a problem and then we can decide on it. For example, planners investigate a policy problem, then they inform the city council, who decides on the problem. In reality however power often ignores or designs knowledge (the planner) at its convenience.

Forrester (1982) considered power as embedded in planning process and advocated for power to be actively analysed by planners in order to influence political decisions. Based on the evaluation of political decision-making in Aalborg, Denmark, Flyvberg (1998) drew important conclusions regarding the relationship between rational decision-making in planning and power. One of his first observations relates to the way in which the powerful defines what the reality is. In this sense, whoever is in power defines what counts as rationality and knowledge, and therefore what should be counted as reality. The greater the power, the greater the freedom in this respect, and the less need for the powerful to understand how reality is 'really' constructed. The "absence of rational arguments and factual documentation in support of certain actions may be more important indicators of levels of power than arguments and documentation that do exist" (Flyvberg 1998: 220). A second observation from the study relates to the interchangeable use of rationality and rationalisation of those in power. This is illustrated by using what is called a 'front-back' relationship: rationalization of specific decision and situation is often presented 'up front' as rationality, open to public scrutiny but often not the entire story. Behind the scenes power and rationalization dominate (Flyvberg 1998: 228-229). A final useful conclusion from the same study is that rationality yields to power, in other words, in an open confrontation, the use of naked power tends to be more effective than any appeal to objectivity, facts, knowledge or rationality. As a result, rationality/rational decisions can only be achieved in so far as power relationships are kept nonantagonistic and stable (Flyvberg 1998: 233)

Planning is not an abstract analytical concept but a concrete practice, an indispensable part of social reality. Albrechts (2003: 251) observes that as such, planning is in politics, and cannot escape politics, but is not politics. Planners then, become involved in the shaping and formulating of planning processes, and the values and images of what a society wants. These values and images are created through review and reconstruction of collective experiences. Some individuals or groups however, have more resources and power, which allow them to pursue their images. Forrester (1989: 34) stresses that planners must "use the power available to them to anticipate and counter efforts of special interests that threaten democratic processes by misusing their power". Therefore as a starting point power relations must be built into the conceptual framework of planning (Sager 1994; Friedmann 1992) and must be considered

in a specific context, place, time and scale, regarding specific issues and particular combinations of actors. Research by Flyvberg (1998) demonstrated the ability of raw power to be more effective in decision-making than rationality. It is however important to remember that plan-making and political decision-making are dealt with in different arenas and with different actors involved. The complexity experienced by actors involved in plan-making and decision-making is noted by Albrechts (2003) as many of them unable to grasp the sensitivities, the gaining of a deeper understanding of the different perspectives and of different interests considered during the plan-making process. The same research found that politicians are often unaware of the consequences of following or not following a certain plan. This strongly relates to what Foucault (as quoted in Dreyfus and Rabonow, 1982: 187) refers to as “people knowing what they do, they frequently know why they do what they do, but what they don’t know is what what they do does”.

2.5.3 Neo-liberalism

Neoliberalisation and market-friendly policies have been affecting the way cities develop and function since the late 1970s (Healey & Williams 1993). Public sector responsibilities were decentralised or privatized, economic sectors deregulated and welfare services superseded by policies that favoured innovative and competitive economic development. New Public Management (NPM) is a reform movement challenging the traditional political-administrative systems of Western democracies. Critical to NPM is the shift from managerialism to entrepreneurialism where politics become more concerned with supporting business and attracting investment than representing voter interests and providing urban services (Harvey 2005). NPMs stress on delegation, devolution and decentralisation as well as the subsequent need for coordination has profoundly changed the government departments where planners work. NPM offers an economic model of governance claiming that market and business rationality can be made to operate as effectively in the public interest as it does in securing private interests (Sager 2010). Smith (1996) has referred to this neoliberal driven development agenda as an urban politics in which the middle class and elites take back the city in the wider symbolic politics and in framing of urban policy. Over the past two decades urban development has become increasingly influenced by neoliberal and market-friendly policies as public agencies, semi independent public organisations, private companies and public private partnerships share the responsibilities and risks of pursuing decentralised goals through individualism and entrepreneurialism. The complexity of such diverse group of roleplayers has accelerated the trends of entrepreneurialism, consumerism and property-led development, and thereby actors in the urban land and property market have been elevated to the position of key players in urban development (Tasan-Kok & Baeten 2012). Since the beginning of the 1990s traditional planning practices had become ineffective and too passive to deal with property-led development and therefore scholars have supported strategic planning as a solution to cope with rapid, random and fragmented development in many Western European countries (Albrechts 2004). The ambivalent position of the planning profession due to the blurred boundaries between public sector and private markets (Alexander 2008) led to an increasing opportunity-led approach of planning institutions.

Neo-liberalism relates to ideas and theories concerning the primacy of the market mechanism, individual freedom and the role of the state. While essentially reflecting an anti-state (read planning) sentiment, neo liberalists argue that markets are a superior way of organizing societies and conditions in which markets can function efficiently. By virtue, state intervention in the market should be far less than it is. Friederich von Hayek, a key ideological inspiration behind neo-liberal thinking, summarized the key themes of neo-liberal theory as follows (Harvey 2005):

- Central planning is dangerous and inefficient; it interferes with the market and reduces individual freedom. The logic of state intervention invariably leads to demand for more state control. Values underpinning state intervention are often vague.
- Society is complex and the interactions between market role-players that shape society cannot be designed or planned.
- The coordination of activities for the benefits of society can take place through free and competitive markets instead of through planned intervention.
- To avoid discretionary and ad hoc decision-making, the role of government should be limited to maintain the rule of law and provide infrastructure and national defence.

The rhetoric of neoliberalism aims to give administrative efficiency, entrepreneurialism and economic freedoms more impetus than democratic political steering. The idea is that markets should discipline politics, contrary to the social-democratic view that markets should be disciplined by politics. This market-driven approach favours a growth-first approach to urban development. The prevailing attitude among planners has been to embrace neither politics nor markets, but rather opt for good, professional (rational) solutions. In order to implement these solutions, however, planners tend to argue for the transfer of tasks from markets to the state, even if this implies the acceptance of political meddling in professional affairs (Allmendinger 2002). Neoliberalism relies on new discourses and new subjectivities (Jessop 2002) that establish legitimacy of the market economy, the disciplinary state and enterprise culture (Miraftab 2012).

Neoliberalism and its tendency to overvalue efficiency and economy in urban planning policy recommendations has been criticized for a number of reasons. Neoliberal strategies can be viewed as an attempt to transform planning systems into quasi-market regulatory mechanisms to deal with conflict mediation over complex spatial environmental disputes (Healey 2000). A further critique sees a contradiction between capitalism and democracy in neoliberalism (Goonewardena 2003). In contrast to communicative planning, NPM and neoliberalism give more attention to accountability, output measurement and performance management (Sager 2010). Communicative planning through participatory processes is sacrificed in the interest of economically sound decisions, and token participation (Miraftab 2012; Allmendinger & Tewdwr-Jones 1997) in the form of symbolic inclusion (Porter & Craig 2004) reduces the transparency of a democratic governance model. As Purcell (2007) notes, decision-making processes under neoliberalism tend to legitimize existing power hierarchies under the auspices of democratic processes. As neoliberal policies tend to favour the economically powerful and advantaged, participation under neoliberal governance gives only these citizens a right to exercise a choice (Miraftab 2012).

Other critique on neoliberalism relates to its predisposition for solutions to urban problems that create profitable business opportunities instead of giving priority to improving the living conditions of the economically deprived. In this regard private investors are given preferential treatment, and those who can afford it to pay for the goods brought about by neoliberal decision-making stand to gain. However, poorer segments of society is disadvantaged by decision-making that is based on a citizen's "willingness to pay" (Sager 2011: 180). Solutions that are often justified as innovative to contemporary urban problems have been exposed as displacing, alienating and marginalizing (Miraftab 2012). Public planning will be able to resist the neo-liberal attack better if it can convey the message that broadly based and justifiable collective decisions are generally more important than efficient decision-making in the economic sense (Sager 2011).

The US and UK have become dominantly neoliberal –oriented. In the US the overall trend over the past decades is urban problems treated with deregulation and the promotion of the capitalist economy. Here, the city mayor occupies a strong role in tackling complex issues including service provision, fundraising and development (Fainstein 2018; Bacque & Biewener 2013; Mele 2013; Purcell 2007). The former, combined with an almost non-partisan base of US cities, allows for businesses and local interest groups to back local politicians into the influential mayor’s office, essentially controlling local spatial development agendas (Savitch & Vogel, 2005). As a result, according to Fainstein (2018: 3) the urban landscape of the US has been shaped “by only a handful of people like Rudi Giuliani and Richard Riordan who followed strict agendas of privatization of state enterprises, reduction of government spending and bureaucracy and scaling back welfare services while fostering economic development and keeping businesses close”.

In Canada public policy is increasingly influenced by corporate interests as part of a competitive city policy. Municipal service and public government have been side-lined in favour for market-driven development schemes and although the governance functions have spread out in the application of public participation and the use of Information and Communication Technology (ICT), all follows the logic of rule of the market place (Keil, 2008). Environmental externalities have occurred as a result of blindly applying neoliberal approaches, and as a result new hybrid forms of neoliberalism seems to appear (Smith & Coombes 2012). Research in the UK suggests that neoliberal policy agendas are increasingly dominated by programmes and discourses that revolve around the creation of so called aspirational citizens (Raco 2012:55). This means a shift away from traditional welfare states to a focus on individual dispositions and the empowerment of communities to become more entrepreneurial, responsible citizens. It justifies policy-led development on the grounds that new forms of societal unequal development will, in the longer term bring about a cultural transformation (Raco 2012).

The complex relationship between neoliberalism and a dispersed urban form has been recognised (Filion & Kramer 2011). On the one hand an effort to maintain middle-class consumption standards (often associated with dispersed urban development) creates support for a neoliberally oriented development agenda. On the other hand, the high infrastructure and transportation costs associated with this form of development places strain on local government finances, retracting some of the enthusiasm for neoliberal urban development (Cervero 2003). For some authors like Gordon and Richardson 1997, the dispersed city model optimally supports free market principles since it is the most efficient way of delivering housing, employment, retailing and other urban activities. These viewpoints are adamant in their opposition to planning-driven alternatives to dispersal (Filion & Kramer 2011).

Research in Toronto has demonstrated the negative effect of neoliberalism on metropolitan-wide urban planning initiatives. In this research, three possible outcomes of neoliberalism on planning policy is identified: The first outcome is planning policy that arise within shifting political and economic processes, or so-called hybrid planning policies, where some objectives support neoliberalism and others are less sympathetic to the free market. The second form of policy outcome is the complete overtaking of planning by neoliberalism. In this outcome planning becomes subservient to short-term market tendencies, and its role is purely the support and stimulation of prevailing market trends. The last possible outcome is plans and policies that promote ambitious transformative visions and ideological planning principles such as public transport orientation and urban recentralisation. In reality however these proposals clash with neoliberal perspectives, and in addition the state is ill capacitate to implement such visions without the support of the market (Filion & Kramer 2011).

2.5.4 Summary

Spatial planning is increasingly seen as political both through processes of formal political structures as well as informal participants in organizational politics. This is especially true within the context of New Public Management where state action is no longer limited to the traditional political-administrative structures, but also include non-state regulation and participation by a variety of external stakeholders. Foucault (1980) suggested that power cannot be held at a particular point either by one individual or organization over another, but that is rather exercised through a net-like organization. Against the background of NPM this net-like organization is interpreted as the different formal and informal stakes found in modern organizational politics. Power of decision-making, and of defining what the parameters are within which a specific decision needs to be taken, varies between the rational specialists (i.e. planners within an organization), politicians, a market-agenda (neoliberal agenda) and other social groups desiring to take part in such decision. Habermas (1976b) contends that participants in organizational decision-making can be freed from the domination of one or more powerful interests and arrive at consensual solutions through mutual understanding and collective reasoning. However, Flyvberg's (1998) observation regarding the relationship between power and rationality suggests that the role of professional planners, as principle agents in policy formulation based on their ability to formulate "rational solutions" is no longer accepted. Instead, whoever yields the most power in an organization's policy decision-making has the opportunity to redefine what "rational solutions" are. Such powerful interests by definition will also be able to proclaim such decisions as "consensual". Urban development (and effectively therefore land use decision-making) is increasingly influenced by neoliberal and market-friendly policies, as a wider range of actors outside formal state organizations participate and share in the responsibilities of city functioning. However, the emphasis of the neoliberal agenda on economic efficiency and performance management lead to its being discredited for neglecting participatory processes and democratic principles. Furthermore, the neoliberal minded solution has a predisposition for profitable business opportunities rather than the solutions driven by the social conscience embedded in state planning. The increasingly powerful role of the neoliberal agenda in spatial planning and land use decision-making is witnessed in the global north. The backing received by the neoliberal agenda from politicians and individual mayors is recorded as a major controlling force in shaping the urban landscape in many of these cities.

2.6 Theories of policy decision-making

Policy development can be described as a series of steps in a decision-making process and was first conceived by Harold Lasswell, a pioneer in the field of policy research (Lasswell 1971). A five-stage model of policy process is most widely used in policy research, where *agenda setting* refers to the first stage in the process when a problem is initially sensed by policy actors and a variety of solutions put forward. *Policy formulation* is the second step and involves the development of specific policy options within government by eliminating infeasible options and ranking the most favourable ones. *Decision-making* is the third step in which governments adopt a particular course of action. The fourth stage sees the *implementation of a policy* as government puts their decision into effect, and finally *policy evaluation* refers to the process in which results of policies are monitored by state and societal actors (Howlett & Giest 2015). The increased, complex dynamics of power sharing in urban networks as described by Teisman and Van Buuren (2015) warrants an investigation into the ever-increasing complexity of the decision-making step of policy formulation. Different styles or approaches have been identified at the decision-making stage of the policy process. Early studies of policy decision-making argued that decision-makers attempt to follow a systematic method for arriving at logical efficient decisions. They argued that policy makers achieved superior results when they first established a goal; explored

alternative strategies for achieving it; attempted to predict its consequences and then choose the option which maximises potential benefits at the least cost or risk (Howlett & Geist 2015).

2.6.1 Decision-making approaches

The following section describes critical decision-making approaches as a way of evaluating differences in decision-making processes. A summary of these approaches are found in Table 2.2. The discussion of each decision-making approach relates specifically to its normative position, the location of the approach’s decision-making power, the ideal execution of the approach as well as some criticism observed regarding the approach.

Table 2.2: A comparison of decision-making process

Decision-Making Model	Decision-making control/power	Normative Position	Ideal(s)	Critique
Path Dependency	Organizational policy decision makers	Initial/earlier decisions influence the trajectory of all subsequent decisions	Once a process is well established, decision output is likely to remain stable	Retrospective Too sensitive to initial conditions
Rational Comprehensive	Organizational policy decision makers	Decision makers consider all alternatives objectively and evaluate all consequences	Planners can act as research scientists in search of the best methodology	Problems are poorly defined, information is incomplete, and values differ in real life
Incrementalism	Organizational policy decision makers	Decision makers build on past decisions, making small instead of wholesale changes	No need to agree on overall objectives, rather focus on concrete problems	Should be seen as a heuristic approach to decision-making only
Garbage-can	Fluid participation by a plurality of groups and actors inside and outside the organization	Decisions are the result of a random confluence of people, problems, solutions and choice opportunities	Anticipates the content of solutions, and mobilise the availability of resources towards this goal	Produce reactive solutions
Mixed Scanning	Organizational decision policy makers	Uses a combination of fundamental higher order decisions and lower order incremental decisions to arrive at higher order decisions	Compatible with progressive and innovative circumstances	Ignoring normative issues such as existing power relationships
Elite Theory	Known or unknown dominant business-elite	Organized minority exercises decisions that affect society as a whole	Within policy-forming groups, economic interests are dominant	Power and the powerful is poorly defined
Pluralism	Fluid participation by a plurality of groups and actors inside and outside the organization	Political decision-making system is open and permeable to groups who are active and want to be heard	Widely diffused decision-making power	Anti-regimes favouring the pro-development lobby can promote one agenda over another
Communicative Action	Fluid participation by a plurality of groups and actors inside and outside the organization	Neutralise biased power relationships by reducing their influence in favour of democracy	Thorough deliberation before a planning issue is decided upon	Emphasise process instead of outcomes
Regulatory Capture	Best organized groups – usually economic/business interest groups	Public bureaucracies become dominated by strong and powerful interest groups	Regulation is directed away from the public interest towards the interest of a particular interest group	Weak capture can be difficult to recognise

Sources: (Hayes 2015; Jones & Thomas 2015; Kay 2015; Marier 2015; Carpenter & Moss 2014; Sager 2013; Armstrong 2008; Healey 2006; Allmendinger 2002; Hacker 2002; Thelen 1999; Etzioni 1986; Ross & Stedman; Einsiedel 1983; Cohen et al 1972; Lindblom 1959; Hunter 1953).

2.6.1.1 Path dependency

Path dependency is an important concept that influences policy outcomes. It can be defined as development trajectories that are difficult to reverse (Kay 2015; Hacker 2002). A process is path

dependent if initial moves in one direction elicit further moves in that same direction: in other words, “the order in which things happen affects how they happen” (Kay 2015: 61). The trajectory of change up to a certain point constrains the trajectory after that point (ibid).

There are four key features associated with path dependence processes. Firstly, during the initial stage of the path, multiple outcomes are possible. Secondly, the starting point of a specific path may be the result of a relatively minor event. Thirdly, the timing of such an event as well as its sequence in which it occurs can greatly influence the path. This is mainly the case as earlier events have a much bigger impact than later events. Lastly, once a process is well established, the policy output is likely to remain stable and be very resistant to change (Marier 2015; Kato 2003).

The concept of path dependency is not a framework, theory or model and it does not provide a general list of variables that can qualify a specific process as “path dependent”. It also doesn’t provide a way of predicting specific links between variables or parameters of those links. It is simply an empirical category, a metaphor describing a certain type of temporal process (Taylor 1996).

Critique of path dependency relates to its retrospective nature and the fact that it cannot be applied for current or future phenomena. Without the benefit of retrospect, explanations or theories are therefore not possible (Raadschelders 1998). Other criticism of path dependency notes its inability to reveal fine-grained mechanisms that could be useful to analyse the suggested process of path dependency (Kay 2015). Path dependency has been described as being too sensitive to initial conditions and too deterministic with respect to subsequent policy decisions (Thelen 1999). The concept of path dependency explain policy trajectories as either stable (incrementally building on former policy decisions) or changed (taking a new direction wholly different from the historical policy decision trajectory). However, historical institutionalist theory suggests that it is possible for policy systems to adapt to new circumstances through a gradual process of layering and conversion rather than through periods of drastic and rapid change (Kay 2015). Layering refers to the adding of new preferences of individual groups or actors onto the existing set of institutionally shaped policy preferences. Conversion refers to the development of new policy preferences by agents outside the institutionalised policy system, who then convert inherited institutions toward new goals and functions (Kay 2015).

2.6.1.2 Rational-comprehensiveness

At the essence of rational-comprehensive decision-making theory is objectivity. Decision-makers consider all the alternatives (courses of action) available and they consider what courses of action are possible within the situation whilst bearing in mind the objective. They then identify and evaluate all the consequences which follow from each alternative and finally select an alternative with the preferable consequence (Allmendinger 2002). Andreas Faludi’s approach to rational planning suggests that planners should act similar to research scientists in rational-comprehensive decision-making theory in searching for the best methodology. When presented with a vast array of information and views and trying to decide which course of action to take, a planner must use rational criteria (Faludi 1973).

The rational-comprehensive model of decision-making assumes that decision-makers have:

- A well defined-problem;
- A full array of alternatives to consider;
- Complete baseline information from which to consider alternatives;
- Complete information about the consequences of each alternative;
- Complete information about the values and preferences of citizens; and
- Fully adequate time, skills and resources.

However, as Forrester (1989) points out, actual decision-makers face a different context characterized by: ambiguous and poorly defined problems; incomplete information about alternatives, the baseline and the background of 'the problem', the range and content of values, preferences and interests; and limited time, skills and resources. This leads to a process of bounded rationality, where rational decisions are made depending on and informed by a specific context. This context is determined by many factors such as the realities within which the problem occurs, the decision-maker's own values, the institutional values and the participation and values of other role-players (Jones & Thomas 2015; Simon 1982).

Foucault (1980) have argued that rationality is a way of creating and reinforcing power relations. Flyvberg (1998) concurs by suggesting that political decisions having implications for "who gets what" are rationalized after the fact as being rational. Planning (at state level) is then effectively used as an ideology to present a rational and logical front to power relations between economic and political interests. Faludi (1973) asserted that it is acceptable to rationalize irrational decision-making in this post hoc manner when a decision is taken based on intuition, provided that it can be justified and explained rationally afterwards. This viewpoint, however, neglects to recognise the tendency of planners to validate their own legitimacy by rationalizing decisions, and to choose processes and methods that fit what they intuitively or ideologically envisage to be right. [Planners] promote theories that fit their normative perspectives (Grant in Allmendinger 2002).

The main criticism against rational decision-making is that rational decision-making requires an accurate perception and definition of public problems (Allmendinger 2002). In reality, however, there is no guarantee that problems will be perceived at all and almost no likelihood that they will be defined the same way by all participants. As Hayes (2015) suggests, items will reach the agenda not because they have been rationally identified, but because they have attracted political support from organised interests or the public.

2.6.1.3 Incrementalism

The theory of incrementalism was first developed in the 1950s by the American political scientist Charles E. Lindblom in response to the then-prevalent conception of policy making as a process of rational analysis culminating in a value-maximizing decision. Incrementalism emphasizes "the plurality of actors involved in the policy-making process and predicts that policy makers will build on past policies", focusing on incremental rather than wholesale changes (Hayes 2015: 291). Because limitations on both time and information preclude examination of more than a few options, policy makers typically focus on alternatives differing only marginally from previous policies. This narrow focus confines attention to options that are well understood and politically feasible.

Lindblom (1959) described the policy making process by distinguishing between the 'root' and 'branch' methods. The root method refers to a comprehensive analysis of all variables bearing relevance on the policy as well as all possible policy implications. Lindblom argues that this method of policy making is impossible in complex problems such as the ones facing public administrators and policy makers. Conversely, the approach to policy-making found in public administration is usually more reminiscent of the branch method he describes as an incremental, comparative methodology ('muddling through') where subsequent policy development and decisions follow the succession of steps that preceded the policy-making process. In this method, policy is not made once and for all – it is made and remade endlessly. Policy-making is a "process of successive approximation to some desired objectives in which what is desired itself continues to change under reconsideration" (Lindblom 1959:11). Wise policy

makers consequently expect that their policies will achieve only part of what they hope and at the same time will produce unanticipated consequences they would have preferred to avoid (ibid).

Incrementalism suggests that there is no need to agree on overall objectives supporting abstract ideals, and rather focuses on concrete problems (for example unemployment). By concentrating on concrete problems, rational analysis of overall objectives is not achieved (Hayes 2015). Incremental outcomes, it is argued, are virtually inevitable, given the need to bargain over a limited number of alternatives that differ only marginally from past policies. Large change is nevertheless possible through the accumulation of incremental steps resulting from repeated policy cycles. This serial nature of the policy process represents yet another advantage of incrementalism; according to Lindblom it permits policy makers to “learn through a process of trial and error, gradually converging on a solution through a process of successive approximations” (Forrester 1989: 65).

While Lindblom is correct that policy-making will be incremental most of the time, research suggests that non-incremental policy change may occur in response to crises, an aroused mass public opinion, or the attainment of the conditions for rational decision-making (Hayes 2015). Habermas (1976b) explore crisis tendencies in decision-making as experienced in the execution of state functions. Of relevance to this research is the legitimacy of a system of social management (the state) of privately appropriated wealth being brought into question, especially to the extent that crises in the economic and administrative functions of the state produce lower levels of growth and increased unemployment (Cooke 2007). The methods by which these crises are overcome usually involve infringing of individual rights, such as individual property rights, and this may lead to a crisis of motivation on the part of individuals (Cooke 2007).

As a way of overcoming what is essentially a ‘capitalist’ form of planning, Habermas contrasts different modes of decision-making by way of differentiation. Firstly, non-participatory incrementalism is suggested as strong procedural formality of a decision-making body, where any controversy is suppressed. Secondly, non-participatory comprehensive planning involves increased reliance on technical, centralist systems guidance in decision-making whilst keeping decision-making away from political debate. Pluralist incrementalism is the process of formal democratic negotiation guiding piecemeal changes in public policy, and lastly, pluralist comprehensive planning sees public policy subject to democratic debate before it is delegated to technical control and implementation (Cooke 2007). Habermas (1976) concludes that in order to avoid political and ideological manipulation of individuals, planning must be the object of an enhanced participatory mode of decision-making.

Recent research illustrates that incrementalism in strategy is a natural phenomenon that practitioners must manage rather than a deliberate course of action that they should skilfully execute (Johnston, Low & Wilson 2012). Technological advances in terms of institutions’ ability to undertake rational analysis has meant that the traditional need for incremental decision-making (i.e. to avoid making decisions that fails to properly understand its potential effects) no longer exists (Wilson 2011). Bendor (2015) argues that the framing of incrementalism as a coherent approach to decision-making or problem solving is a mistake, and that is more appropriate to consider it as part of a package of heuristic tools deployed in decision-making.

2.6.1.4 Garbage-can decision-making model

Rational models follow a sequential ordering of steps in the decision-making process, however the garbage-can model does not assume this process. Solutions can be aimed at addressing problems; the expertise of participants determines the kind of problems addressed; and the opportunities that exist

determine which solutions are selected. For example, the organization may have additional budget to spend before the end of the financial year or risk forfeiting these funds. The manager in charge of the decision would be looking for a priority projects to allocate these funds to. Some choices are readily available and a match is made between project and funds (Cohen, March & Olsen 1972). According to Cohen et al (1972) garbage-can decisions are engendered as a result of three factors: Firstly, fluid participation: This means that the attention dedicated to a specific issue by participants is highly variable and organisational members tend to enter and exit decision situations according to processes unrelated to the problems at hand. Secondly, unclear decision technology: this refers to the fact that causal relationships between organisational decision problems are often vague and ambiguous. Thirdly, problematic preferences: This refers to the tendency of decision-makers to discover their preferences through action rather than acting on the basis of predefined preferences. Organisations that are characterised by these three conditions were labelled by Cohen et al (1972) as organised anarchies (Fioretti & Lomi 2010). The main innovation of the model lies in its attempt to push organizational decision theory into the previously uncharted territory of organized anarchies (Sager & Rielle 2013). The heart of the garbage-can model is the premise that decisions are the result of a random confluence of people, problems, solutions and choice opportunities (Eisenhart & Zbaracki 1992). Cohen et al. (1972) rejected a linear logic of rational decision-making through a line of subsequent stages and proposed an alternative view of a conjunction of different streams at a given time. As a consequence, "solutions may be linked to problems more by chance than design" (Bendor, Moe & Shotts 2001: 175). There are different applications of the garbage-can model and the different streams are not labelled consistently in these models. This variance of models is well in line with the inventors' spirit which has always been to encourage colleagues to play with the basic ideas, rather than defend them endlessly (Sager & Rielle 2013).

The garbage-can model does not assume a feedback loop (Mucciaroni 2015). In contrast to the rational models in which the content of the solution to a problem is not known precisely until the end, the garbage-can model anticipates the content of the solution, and "influences the availability of resources which, in turn, affects the choice of the intervention" (Einsiedel 1983: 53).

In comparison to rational models, the garbage-can model calls attention to the importance of chance. What gets decided depends very strongly on timing and luck and decisions often have a fuzzy character, lacking a clear beginning and end point (Eisenhart & Zbaracki 1992). Rational models view resources as mere means to an end, and tend to regard them as passive elements in the decision process that ought not to influence the choice of the problem and, at times, even the solution. The garbage-can model, on the other hand, considers resources as practical and significant determinants of choices. The garbage-can model probably describes how many managers "'muddle through' decisions, charting their way by the 'seat of their pants', relying on all the managerial 'street smarts' that they have acquired from 'winging it' through life, not to mention their 'gift of gab' that sometimes conceals the lack of substantive reason and logic with eloquence and a few gimmicks" (Cohen et al 1972: 18).

The garbage-can model, although very realistic, can produce reactive rather than proactive solutions. Reactive solutions are usually short-term and crisis-oriented. Proactive solutions are usually part of a long-term plan of action or series of actions based on a more systematic analysis of the problem situation. Relying only on reactive solutions may, in the long run, cause some important problems to be overlooked and some solutions to be overworked (ibid).

2.6.1.5 Mixed scanning

Mixed scanning, referred to as a “third approach” to decision-making was developed in contrast to rationalist and incremental decision-making models (Etzioni 1986). It permits decision-makers to use rational-comprehensive and incremental theories in different situations. Rationalist approaches were held to be Utopian because actors cannot command the resources and capabilities required by rationalist decision-making. Incrementalism was criticized for overlooking opportunities for significant innovations. As a decision-making model, mixed scanning is a combination of fundamental higher order decisions and lower order incremental decisions to arrive at higher order decisions. It is less tedious and complex than a comprehensive rational process, but more strategic and innovative than incrementalism (Goldberg 1975). It is argued that the mixed method approach provides decision-makers with the capacity to adapt to changing circumstances. Etzioni (1986) supports the hypothesis that rational models would suit a highly totalitarian system, incrementalism would suit a highly pluralistic society and that mixed scanning would fit in a context of societies that find a balance between commitment to collective good and pluralism. Mixed scanning also take the capacity of decision-makers into account: the greater the capacity of decision-makers to mobilize power for implementing their decisions, the more scanning they can realistically engage in, leading to more effective decision-making (Anderson 1994).

Mixed scanning is most compatible with a progressive, innovative viewpoint. It assumes the capacity of actors to adapt to changing circumstances, even major changes, even the structure of actors themselves. Mixed scanning is claimed to avoid the most serious problems of both the overly rationalistic model and the excessively pragmatic models (Bradley 1973). Criticism of the mixed scanning approach however relates firstly to its ignoring of normative issues, such as existing power relationships (Hanna in Etzioni 1986) and secondly to its involved and time-consuming nature (Wimberly & Morrow 1981).

2.6.1.6 Elite theory

Elite theory is based on a hierarchical conception of society, and is concerned with power relations between rulers and the ruled, the powerful and the powerless (Selwyn 2016). Modern elite theory, although developed over the last century, date back to Ancient Greece. Normative elite theory assumes domination over a disorganized majority by an organized minority (Sall & Khan 2017). The technocratic approach to elite theory suggests that elites, good or bad, are necessary for the management of increasingly complex modern societies. This calls for bureaucratic efficiency in specialized tasks being performed according to formal rules and procedures within a well-defined hierarchy, instead of a traditional authority of the feudal era. Weber (1968) argued that elected politicians, by using charismatic authority, were essential in maintaining social control over powerful bureaucratic forces.

The first attempt to apply elite theory to urban studies was made by Hunter (1953) who utilized reputational analysis to prove the power of individuals based on their reputation for having that power. His objective method began with the identification of community members in prominent positions i.e. business, government, civic associations and society. Hunter’s results revealed that community influence formed themselves into groups, depending on their main interests, but claimed that the leaders of each group essentially comprised perceived policy makers. These leaders were rarely visible to the lay community, and generally left it to others less important than themselves to act as voices in business and civic associations. These perceived policy makers do not make policies in a political or administrative sense. However, the textbook process of policy making where politicians’ desires are translated into policies and implemented by officials, does not reflect what happens in reality. Within

the policy-forming groups, the economic interests are dominant. Essentially nothing in government changes or adapts if it is not initiated or approved by a business-dominated elite. This study offered 'scientific' evidence that local representative democracy in the US was just a smokescreen for dominant economic interests (Ross & Stedman 1985).

Some neo-elite theorists like Bachrach and Baratz (1970) argued that the power to make a decision represented only one aspect of power. A second aspect sees powerful role-players having manipulated the decision-making agenda beforehand to ensure that issues they do not want to be debated are taken off the public agenda (Harding 1995).

The difficulty with elite theory is the fact that power, as being held by the elite is ill-defined in this context. The power elite and the ruling elite is differently conceived and in the end becomes quite elusive (Tittenbrun 2013).

2.6.1.7 Pluralism

The earliest pluralists (Robert Dahl and Nelson Polsby) rejected the notion that a small group of economically and socially pre-eminent men, by determining policy informally behind the scenes, were seen to have subordinated roles of civic and political leaders (Eisfeld 2006; Jamieson 2004). It is argued that the political system is still open and permeable to groups who are active, organized and who want to be heard (Armstrong 2008; Jordan 1990).

Pluralists' interpretation of decision-making involves a "fractured polity of many competing interest groups with overlapping memberships and widely diffused power" (Allmendinger 2002: 14). Pluralists' arguments further follow that as cities become larger and more sophisticated, policy making evolves from an elitist model to a more pluralist model as interests diversify, and it becomes more difficult to rule such an area in a homogenized way. There is a danger, however, that increasing pluralism can lead to ungovernability (ibid).

The unequal distribution of power in the political landscape draw pluralists' attention to 'anti-regimes', a particularly obstructive pluralism that seeks to promote one agenda over others, for example, economic development. The pro-economic development lobby is characterized by pluralism in its diversity and increasing fragmentation but still seeks alliance amongst one another and from local government (Allmendinger 2002).

General characteristics of pluralism, as described by Allmendinger (2002: 66), are that:

- Power is fragmented and decentralised in society;
- There are dispersed inequalities in that all groups have access to some resources to make their case;
- This dispersion of power is a desirable feature in any system approaching democracy;
- Political outcomes in different policy sectors will reflect different processes, different actors and different distributions of power within those sectors;
- The exercise of power extends beyond the formal institutional structures of elections and representative institutions in liberal democracy;
- The interaction of interests would supply a practical alternative to the 'general will' as the source of legitimate authority; and
- The disaggregate nature of decision-making and the uncertainty of outcomes of the bargaining process help to bind participants to the process itself.

The variety of input generated by a pluralist model of decision-making have been named to make decision-making systems unmanageable. Proponents of cybernetic approaches to spatial planning decision-making have argued for reducing the variety and restricting communication between the elements within a system (Karadimitriou 2010). In reducing the societal variety of input into a sociospatial system the risk is however that the built environment ends up suiting only a limited range of needs and aspirations.

2.6.1.8 The theory of communicative action and communicative planning

In the theory of communicative action, Habermas puts forward that the innermost formative structures of social order occurs via action geared to reaching an understanding and coordinating consensus in the respective individually pursued plans of action (Margerum 2011; Healey 2006). Openness of this communicative action is defined by Habermas as having the following attributes (Dux 1991: 55):

- Every subject with the competence to speak and act is allowed to take part in the discourse;
- Everyone is allowed to question any assertion;
- Everyone is allowed to introduce any assertion;
- Everyone is allowed to express his or her attitudes, desires and needs; and
- No speaker may be prevented by internal or external coercion from exercising his or her rights.

Communicative planning as an approach aims to advance deliberate democracy by exploring the potential for broad, workable agreement on planning matters, making deliberation inclusive and thorough before a planning issue is decided on (Healey 2006; Innes 1995). This type of planning attempts to neutralize biased power relations by reducing their influence in order to produce more democratic outcomes (Forrester 2013). It is envisaged that increased participation will assist in developing social capital and community cohesion, improve service delivery to local constituents, restore accountability and provide a legitimate platform for dialogue with those directly affected by public policy (Sager 2013). Communicative planning entails more than talking with stakeholders and informing the public. It is about a respectful, interpersonal discursive practice adapted to the needs of the liberal and pluralist societies in order to prevent one social group from legitimately forcing its preferred solutions to collective problems on other groups (Sager 2013; De Roo & Porter 2007). The ideal is to reach a decision through debate rather than voting.

Communicative planning have long been criticized for emphasizing the process of planning while losing focus on the outcomes of the plan. Many authors have criticized communicative planning for this reason since it provides a vehicle for neoliberalist agenda's to garner support from communities, the plan ultimately being in favour of neoliberalist ideals (Goodspeed 2016; Sager 2013; Miraftab 2009; Purcell 2009). Another critique of communicative planning is the political nature of the planning debate, within which it becomes difficult to find the authentic debate and argument. Related to this is the observation by Matthews (2013) that intersubjective understanding will be difficult to achieve in a rapidly moving planning and policymaking process. Sager (2013) suggests that collaborative rationality can serve as a needed compliment in aiding these political debates.

2.6.1.9 Regulatory capture

In the second half of the 20th century, the concept of state capture was used in the early critique of the pluralist theoretical framework in political science. According to pluralism, a multiplicity of interest groups prevents any particular group from being dominant. However, the counterargument was that interest groups "are not equally endowed with resources" (King & Hayes 2017: 3). Many commentators

argued that business represents a very strong power system—“far stronger than any other social group or institution—that challenges and threatens to dominate public power” (King & Hayes 2017: 9). The term capture describes how public bureaucracies had become dominated by strong and powerful interest groups (Laffont & Tirole 1991). In a context characterized by a complex multitude of interest groups, the bureaucrats tend to deal with the best-organized groups as a way of reducing complexity (Callaway 2017)

Regulatory capture is the result or process by which regulation is consistently or repeatedly directed away from the public interest and toward the interests of the regulated industry, by the intent and action of the industry itself. Strong capture violates the public interest to such an extent that the public would be better served by “either (a) no regulation of the activity in question – because the benefits of regulation are outweighed by the costs of capture, or (b) comprehensive replacement of the policy and agency in question” (Potter 2014: 641). Weak capture, by contrast, occurs when special interest influence compromises the capacity of regulation to enhance the public interest, but the public is still being served by regulation, relative to the baseline of no regulation. In other words, weak capture prevails when the “net social benefits of regulation are diminished as a result of special interest influence”, but remain positive overall (Carpenter & Moss 2014:87).

In order to prove the prevalence of state capture Carpenter and Moss (2014: 88) requires the following to be evident:

- A clear forfeiture of public interest
- A policy shift away from public interest and toward industry/special interest
- Intent by the industry in pursuit of this policy shift sufficiently effective to have caused an appreciable part of the shift

2.6.2 Summary

A discussion of different approaches to decision-making reveals significant normative dissimilarities. The rational comprehensive approach to decision-making relies on the expert to consider alternatives and evaluate all consequences, i.e. by being “comprehensive” arriving at the “rational” decision. Approaches such as path dependency and incrementalism however describe policy decisions arrived at resulting from a series of earlier decisions. In these instances decisions are rarely big departures from previous decisions, but rather policy decisions differing in small increments from former ones. The mixed-scanning approaches to decision-making suggests that there are benefits in combining rational and incremental decisions. All of these decision-making approaches rely on the organizational policy decision-maker to use its expert knowledge to arrive at a decision. In elite theory and the theory of regulatory capture it is clear that the power to make a decisions lies with a known/unknown powerful elite, usually represented by a strong business or economic interest. The primary concern in these decisions therefore becomes whatever is in the interest of said elite. The theories of pluralism, communicative action, and the garbage-can model of decision-making considers the participation of a wider audience in the making of policy decisions. In these approaches, it is envisaged that power biases will be neutralized by allowing open and permeable participation in decision-making by people inside and outside an organization.

2.7 Conclusion

The purpose of this chapter was to explore theories relating to the evolution of the urban growth management discourse in order to provide a basis for the historical analysis of urban growth management in Chapters 4 and 5. Sections 2.5 and 2.6 of the chapter postulated theories relating to

planning, politics and decision-making that will form the foundation of the evaluation research in Chapters 6 and 7. City forms that inspired the ideal to limit the physical expansion of cities were firstly the Garden City movement of the late 19th century, during which poor living conditions in industrial towns and cities in the UK facilitated the mass movement of people towards what they considered to be utopian living in the countryside. These cities were however firmly restricted in size and operation in an attempt to minimize the impact on the surrounding countryside. The vision of garden cities was eventually replaced by the compact city discourse, an idea born from the centrist discourse on urban planning and embraced during the 1990s by proponents of environmental sustainability. Despite criticism from counter discourses, the compact city remains heralded as the most efficient urban form in cities of the global north, mainly as a result of its acclaimed reduced environmental impact, its ability to facilitate efficient public transportation, and its social efficiency awarding equal opportunity access to all citizens. Since the era of garden cities, instruments were devised to manage the outward expansion of cities. Initially greenbelts were used in an attempt to protect the countryside against overspill from planned decentralization. The urban growth management discourse have however evolved to include a range of mechanisms such as urban edges, services boundaries, and more holistic approaches such as smart growth offering a package of mechanisms to facilitate the (more) compact, dense(r) development of urban areas. These mechanisms have been implemented with various levels of success in cities in the USA and Europe. The main challenge associated with state growth management programmes is associated with the limited capacity of government to enforce urban growth management mechanisms. Growth management programmes are highly influenced by private development interests that receive support from political decision-makers.

The considerable political and private development interest motivated an exploration into spatial planning as an inherently political institution. The increasing involvement of non-state actors (read neoliberal interests) in urban development decision-making has been recognised. From a Foucaultian and Habermasian perspective power is considered to be situated within a specific context of historical and social conditions, varying in resources, advantages and statuses. However, where Habermass suggests that consensual agreement can be reached by collective reasoning and mutual understanding, Foucault argues that what is rational and consensual will be defined by whoever is the most powerful. There is an increasingly strong participation by the neoliberal agenda in spatial planning in the global north. Despite its tendency to act in economic (self)interest this agenda receives support from politicians and individual mayors. The neoliberal agenda therefore has the ability to, through strong influences in land use and spatial planning decisions, shape the way in which urban areas develop.

Policy decisions can be made by applying a variety of approaches. These were discussed in section 2.6 by comparing different approaches in terms of their normative values, ideal(s), location of decision-making power and critique. The rational comprehensive decision-making model assumes the planner/organization as expert in analysing all alternatives, and arriving at a rational decision that maximizes benefit while minimizing risk. Incremental and path dependent decisions sees the organization and planner as taking decisions that build on former decisions, taking the history of previous organizational decision-making into account and rarely deviating from a predetermined path. Theories of elite decision-making and regulatory capture demonstrated the ability of specific interests groups, often economic/business interest groups to not only influence policy decisions, but ultimately determine political decision behaviour. By considering the communicative action, pluralist and garbage-can approaches to decision-making, the notion of involving a wide range of organizational and non-organizational actors in decision-making was explored.

Going forward, the chapter concludes that urban growth management is highly volatile to political and market influences, as economic realities drive many political decisions. Since spatial planning is a highly political practice, policies and programmes implemented by planners will be subject to these influences. Land use decisions that need to be taken as a result of restrictions on urban growth (through the implementation of urban growth management mechanisms) are the subjects of much political and economic interest interference. These decisions can be further studied to determine how influential particular economic interests are. By analysing the decision-making process, it can be determined to what degree these decisions were taken rationally, incrementally, consultatively, or purely by means of elite influence.

CHAPTER 3: METHODOLOGY

3.1 Introduction

Scholars of comparative public policy are interested in systematically studying public policy and their origins in order to gain a better understanding of the causes, factors and institutional or actor constellations that bring about different kinds of policy decisions (Schmitt 2015). In this vein, these analyses include comparisons over time and/or over units, for example the analysis of local governments. The analytical focus of comparative policy analysis is on policy decisions and factors explaining these decisions.

The policy analysis movement began to emerge in the mid 1960s, driven mostly by the emergence of problems and political conditions that have made those problems salient (Mintrom & Williams 2015). Planning evaluation is the systematic assessment of plans, planning processes and outcomes compared with explicit standards or indicators. Different forms of analysis exist. A priori evaluation guides the selection of planning alternatives by comparing their expected impacts. Ongoing monitoring “measures progress during planning processes to redirect the course if necessary” (Laurian et al 2010: 745). Ex post facto, or retrospective evaluation, identifies and explains the impacts of plans in order to “facilitate a learning experience and to inform future decisions” (Laurian et al 2010: 747). Carmona and Sieh (2008; 2005; 2004) have recognized the underdeveloped nature of literature on ex post facto evaluations of planning outcomes. Policy advising is a logical step flowing from public policy analysis. It is defined as the practice of providing information to decision makers in government, with the intention of improving the knowledge base from which decisions are made (Mintrom & Williams 2015).

From Chapter 2 it was concluded that spatial planning policy decision-making is severely impacted by politics and power relationships. Empirically therefore, the distribution of power can be analysed in a specific decision-making context. This chapter outlines the research design and methodology employed in evaluating the factors during decision-making that contributed to the termination of the urban edge and development edges policy in Cape Town, South Africa.

3.2 The value of comparative research methodologies

Lindblom (2012) differentiates between ‘root’ and ‘branch’ methods in policy making. A comprehensive analysis of all variables bearing relevance on the policy as well as all possible policy implications (i.e. a ‘root approach’ to policy making) is seldom possible in complex problems such as the ones facing public administrators and policy makers. More commonly the approach to policy-making found in public administration is reminiscent of the branch method - an incremental, comparative methodology where subsequent policy development and decisions follow the succession of steps that preceded the policy-making process.

In the root method described, a policy is regarded as ‘good’ or ‘rational’ if it can be shown to have attained the specific objectives put forward at the start of the process. However, the only measure for ‘good’ policy offered by the branch method is agreement on the policy itself, regardless of whether stakeholders agreed on the objectives to begin with (Lindblom 2012).

The assumption of root analysis is that theory is the most systematic and efficient way to bring relevant knowledge to bear on a specific problem. However, adequate theory do not exist in most complex policy arenas. The usefulness of theory is furthermore sometimes extremely limited in policy making as theory can be constructed only through a great collection of observations (the luxury of which we seldom possess) and it is typically insufficiently precise for application to a policy process that undergoes small

changes (Lindblom 2012). Growth management theory, for example, in most instances offer a perspective on growth management instruments, its intended outcomes, and its actual outcomes; however, it rarely delves into the value-chain of successional steps in fine-tuning specific growth management tools as it responds to subsequent incremental changes in the urban condition. In contrast, comparative methods are less reliant on a comprehensive body of facts and observations and succeeds in directing attention to just those aspects that are relevant to the fine choices faced by the decision maker (Lindblom 2012).

Consider in this regard the evaluation of spatial planning as seen by Faludi (2000) who argues that the traditional normative method of measuring the impact of policy on its outcomes fails to appreciate the planning-as-learning approach (much akin to the incremental policy-making approach described by Lindblom that requires a more subtle evaluation of what constitutes good policy). The argument flows that the object of planning seizes to be urban problems or urban areas but essentially becomes the set of decisions and actions coordinated by means of a plan. In situations where decisions subsequent to the adoption of the plan do not conform to the plan, the evaluator must find out what really happened to the plan and how (if at all) it was considered.

On this basis, Wallagh (1994) (in Faludi 2000: 306) gives a comprehensive specification of the types of situations in which a plan performs its function as a learning framework, and this list may at the same time serve as a checklist for the evaluator of the plan's performance. The situations are as follows:

- An operational decision conforms to the plan and explicit reference is made to it, demonstrating that conformance has not been accidental;
- Arguments are being derived from the plan for taking non-conforming decisions, so that departures are deliberate;
- The plan provides the basis for analysing consequences of an incidental decision which happens to contravene the plan, thus bringing that decision under the umbrella of the plan;
- If and when departures become too frequent and the plan must be reviewed, the original plan may still be said to have worked for as long as the review takes that plan as its point of departure.

Considering the potential ways of undertaking policy analysis, thereby illustrating plan conformance and performance, the following section details the research design applied in this thesis to evaluate the CoCT urban edge line and policy.

3.3 Research design

The research, in applying concepts of critical theory in a southern context, makes use of a mixed methodology, combining both historical narrative analysis and evaluation research. Narrative inquiry, a relatively new qualitative methodology, is the study of experience understood narratively i.e. thinking about and studying experiences. Narrative inquiry follows a recursive, reflexive process of moving from field (with starting points in telling or living of stories) to field texts (data) to interim and final research texts (Clandinin & Huber 2010). Narrative and historical analysis as described by Mouton (2006) attempts to reconstruct the past and a chronology of events. In this research, the historical influences of urban growth management that formed the basis of the CoCT's approach to urban growth management, i.e. the urban edge and development edges policy, will be reconstructed in an attempt to understand the chain of events that influenced significant effects during the life course of the urban edge policy (Figure 3.1).

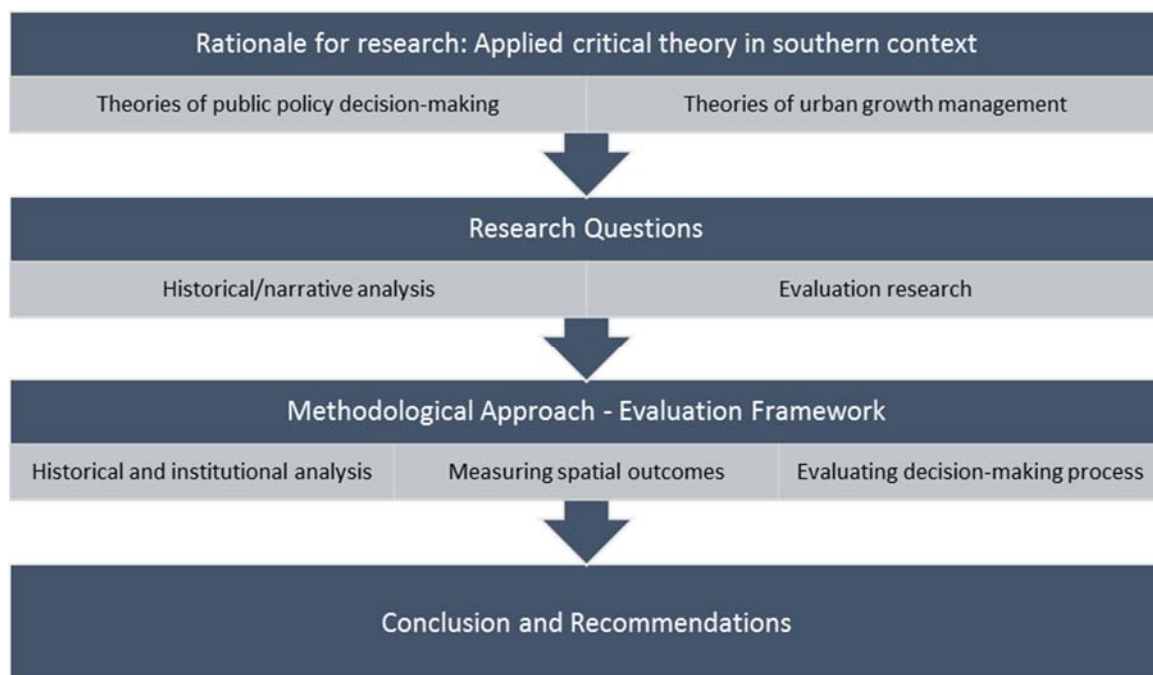


Figure 3.1 Research design

Narrative inquirers views change as a critical component of narrative analysis. Through engaging with participants, narrative inquirers see themselves and the participants as each retelling and reliving their own experiences, forming new identities and opinions through this inquiry process (Clandinin & Huber 2010). Several authors who described the use of narrative and historical analysis in research cited its emphasis on process and change as its strength (Roller & Lavrakas 2015; Wertz 2011; Clandinin & Huber 2010). The strength of this particular method is valuable in this specific study given the ultimate goal of establishing the causes and process of particular policy changes. Narrative research relies heavily on documentary sources and public records. However, the subjectiveness of the researcher can influence the way these sources are interpreted, and is therefore mentioned as a limitation of using this method (Mouton 2006).

Implementation evaluation intends to answer the question of whether an intervention (programme, policy) has been properly implemented and whether the intervention was implemented as planned (Mouton 2001). Usually, the selection of case studies in this form of research is determined by specifics in the nature of the intervention, or by the specific process of evaluation. (The selection of this specific case study is based on the ultimate termination of the CoCT urban edge line and development edges policy, warranting an in-depth investigation into the reasons for termination). Strengths of the method includes its applied nature in assessing whether interventions have been well conceptualized and properly implemented (Freeman, Rossi & Sandefur 1993; Herman 1988; Rutman 1977). Studies of this nature predominantly rely on structured and less structured interviews and analysis of existing documentary sources. As a result, the timing of the research is crucial in viable execution of such studies, since significant time lapse since implementation (or in this instance termination) can be detrimental to the (re)collection of information and data.

There are different approaches to analysing case-study specific decision-making in policy processes as cited by Albrechts (2003). Some authors have analysed decisions from the outside as critical observers (Flyvberg 1998), while others provide a first-hand experience as planning practitioners and take an action point of view (Kitchen 1997; Krumholz 1982). By combining the narrative experiences of

practitioners, public records, literature and theoretical analyses, the researcher hopes to achieve both a critical and action-oriented approach to policy analysis.

3.4. Methodology

3.4.1 Narrative/historical analysis

Historical institutionalism is a social science research method that focuses on the creation, persistence and change of institutions over time (Sorensen 2015). It suggests that historical paths chosen by institutions, or designed early on in the existence of an institution, tend to be followed throughout the institution's development. This means that an institution's implicit agenda will be informed by its historical pattern of development. This aligns strongly with the concept of path dependency where the historical track of an institution will result in almost inevitable occurrences (Goldstone 1998). Path dependency is increasingly being used and debated in urban research fields examining the dominance of earlier ideas that create obstacles to later ones. The theory of path dependency does not, however, mean that institutional paths will forever be inevitable. Critical junctures may allow rapid change at a time of great crisis.

Critical junctures are those moments of major change when new institutions are established. This can be defined as a period of significant change, which typically occurs in distinct ways in different countries, and which is hypothesized to produce distinct legacies (Collier & Collier 1991). These are the points of equilibrium where major changes are triggered primarily by exogenous forces, and new institutional arrangements and new developmental pathways are created. The loss of legitimacy of existing institutions, resulting from crises, allows a heightened opportunity for policy entrepreneurs or other actors to reshape existing institutions and create new arrangements (Sorensen 2015).

From a **historical perspective**, the global and local urban growth management discourse trajectory will be traced through archival sources as well as personal discussions with professionals involved in the CTSDF since 1990, in order to establish its original institutional path in the CoCT that found expression in the urban edge line and development edges policy. Subsequent critical junctures (gradual urban edge line concessions) that eventually lead to the ultimate termination of the CoCT urban edge line and development edges policy will be explored.

Policy termination refers to the adjustment of policies and programs that have become dysfunctional, redundant, outmoded and unnecessary. Termination is often the replacement of one set of expectations, rules and practices with another (Brewer 1978). Over the years, the idea of termination of policy became uncoupled from the policy cycle. The termination stage of the policy cycle is, however, a recognition that a specific policy's lifetime is limited: when a policy's objectives are reached and maintained, its relevance and applicability should be reconsidered, and if found redundant, it should be terminated (Geva-May 2004). The underlying assumption put forward by the same author is that termination of policy occur in decision windows that open and close as political, policy and problem streams converge.

Policy dismantling is a related concept that focuses on policy decisions to reduce public generosity, or to water down the rigidity of regulatory policies, for example environmental policy (Schmitt 2015), or in this instance, the gradual erosion of the urban edge policy because of multiple urban edge line concessions. Policy dismantling and termination research tends to overestimate the factors that lead to negative policy choices. Conceptual complexity of determining quantitative policy output is the main reason for the limited amount of termination and dismantling policy research in environmental and social policy fields (Schmitt 2015). Policy termination receives little systemic attention in policy analysis

for three reasons: Firstly, there are negative associations with the act of termination. Secondly, there are not enough cases from which researchers can begin to generalize. A third reason for the lack of focus on termination is that the intellectual problems presented by termination are very difficult, especially given the incremental notions of policy adjustment. At what point does the 'fine tuning' of policy implementation become partial termination? Termination can be viewed as an opportunity for improving a deficient condition. A well-designed policy might include termination as a final option to be initiated should evaluation of the policy prove to be negative (Deleon 1978).

3.4.2 Evaluation research

Literature on policy analysis differentiates between evaluation of outputs and outcomes. Morrison and Pearce (2000) define outcomes as the combined effects of the planning system and all other influences, suggesting that the focus should be not only on the outputs of a planning policy but also on their effects and processes by which they enable outcomes. Studies that dwell on assessing programme outputs are unlikely to reveal the multiple and conflicting ways that participants interpret public programmes. This may lead to a misinterpretation of the motivations of programme personnel and participants to change the original programme goals of policy-makers (Mintrom & Williams 2015).

Faludi (2000) adds to the debate by arguing that the way in which strategic spatial plans (i.e. plans that aim to guide decisions of multitude of actors) improve the decision makers' understanding of present and future problems must be evaluated and not their material outcomes. The quality of strategic plans must therefore be measured in terms of the performance of plans in facilitating decision-making. This performance is defined by Faludi as the way in which a plan fares during negotiations, whether people use it, whether it helps clarify choices, and whether the plan forms part of the definition of subsequent decision situations (irrespective of it being followed). In other words, a plan is performing well if it plays a tangible role in the choices of actors to whom it is addressed. These outcome studies are based on rather indirect measures of the underlying policy decisions (Schmitt 2015). The idea of linking outcome evaluation to process values is described by Sen (2009) as evaluating the 'comprehensive outcome', i.e. taking the dynamic context of the choice of action into account, for example, the properties of a planning process leading up to a specific recommendation.

3.4.2.1 Outcome evaluation

Empirical studies contribute to an understanding of the essence of sprawl as they "add quantitative knowledge to the discussion and suggest possible solutions without which ideological and practical discussion on urban sprawl and the effectiveness of a growth management policy remains only conceptual" (Frenkel & Ashkenazi 2008: 57). Spatial metrics can thereby assist in quantifying indices to describe structures and patterns of a landscape (ibid).

Therefore, simple metrics that are capable of black and white characterisation of sprawl – such as metrics reflecting the relationship between population change and land conversion to urban uses – are preferred methods in evaluating the effectiveness of urban growth management instruments (Bhatta, Saraswati & Bandyopadhyay 2010; Frenkel & Ashkenazi 2008; Torrens 2008; Sutton 2003). In order to determine the spatial effectiveness of the urban edge policy in Cape Town, an urban sprawl index (USI) was therefore calculated (see Chapter 5 for methodology) by assuming a hypothetical black and white determination approach, i.e. if the built-up growth rate exceeds the population growth rate, there is an incidence of sprawl. The data required to develop this measure of urban sprawl are 1) the aerial extent of the urban area; 2) the corresponding population of the urban area; and 3) a formula describing the relationship between the population and the aerial extent of the urban area.

The proposed USI, however, yields a crude measure of sprawl, one which fails to critically assess the contribution of specific land uses and market segments to the incidence of sprawl, and therefore to serve as definitive measure of the success or failure of an urban growth management policy such as the urban edge policy in Cape Town. Kline (2000) criticizes the use of population data as a means of evaluating the effectiveness of growth management policies and cautions that in addition to land use or land use conversion data, many other factors should be considered when assessing growth management policies. To supplement the USI analysis, a further analysis is undertaken to reveal the extent, location and proposed land uses of urban land included in the urban edge line as a result of urban edge line amendments following the original urban edge of 2001.

3.4.2.2 Outcome evaluation: decision-making process

Different models exist that researchers can apply to describe, analyse and evaluate decision-making (e.g. Kingdon 1984; Butler 1991; Dunn 2012; Manski 2013). The phase model is the most common approach. In this approach, decision-making is represented in terms of a number of distinct stages, and a distinction is made between policy formation, policy adoption and policy implementation. Each phase has its specific characteristics and participants. Another model for policy analysis is the round model, assuming that decision-making consists of different decision-making rounds. In all sets of rounds, the interaction between different actors results in one or more definitions of problems and solutions. A third model for evaluating decision-making in policy is the streams model, originally developed in 1972 by Cohen et al and elaborated upon by Kingdon (1984). There are three streams that exist simultaneously. They are “largely independent of one another and each develops according to its own dynamics and rules” (Kingdon 1984: 55). There are three separate streams where specific products are developed and transformed into their own dynamics and therefore are not linked in any temporal sequence. The idea is that decision-making consists mainly of a stream in which problems are discussed, a stream in which solutions are discussed and a stream consisting of things such as the attitude of the public, campaigns by pressure groups, and ideological contributions (indicated in Figure 3.2). Politicians can determine the problems and solutions they wish to concentrate on. For this reason, they are likely to rush from one combination of problem and solution to another. As a result, the level of participation in decision-making is likely to vary strongly.

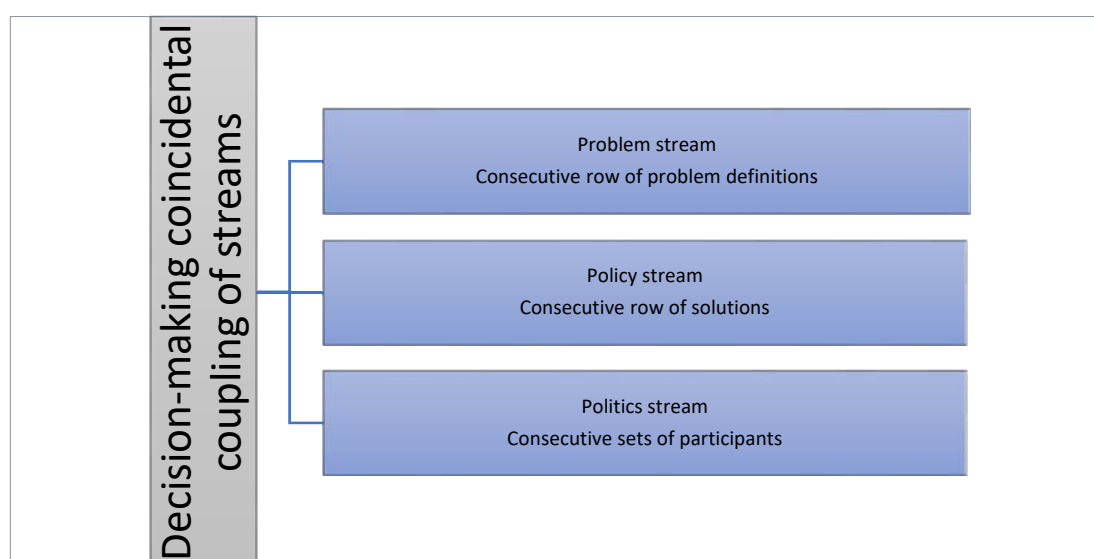


Figure 3.2: The concept of decision-making used in the streams model (adapted from Teisman & Van Buuren 2015).

Out of the different policy analysis models, the streams model was deemed most appropriate for this research as the CoCT urban edge policy solicits vastly different viewpoints and critiques from theory, practice and politics. By considering each stream separately, the viewpoints from each separate stream can be analysed independently and linkages and convergences that lead to the most prominent policy decisions, illuminated by the narrative analysis, observed.

According to this conceptual model, major policy changes are likely to occur only if the three streams are linked. Such linkages can occur specifically if there is a favourable momentum, a so-called “policy window” (Teisman & Van Buuren 2015: 301). By using this model, the researcher can make decision-making transparent by investigating to what extent links are forged and why they are forged.

The streams model is characterized by (Teisman & Van Buuren 2015: 311):

- Criteria for the separation of strands of activities/streams: different concurrent streams of problems, solutions and politics;
- Characterisation of decision-making: coincidental or organized links between streams;
- Assumptions about the nature of the process: a simultaneous stream of problems, solutions and politics, linked more or less at random; and
- Assumptions about the content of the process: dynamics within and links between streams determine major policy changes.

The principal limitation of the original streams model is the argument that the three streams exist independently during the ‘agenda setting’ phase of policy making, but that the model offers little to explain how the different streams exist and operate in subsequent phases of policy implementation i.e. the decision-making phase. To overcome this limitation, the adapted streams model, put forward by Howlett, McConnell and Perl (2014), is proposed (Figure 3.3). In the adapted streams model, policy making is seen as a sequence in which critical confluence and distribution points among policy streams are linked to specific stages of the policy process in a cycle model, similar to the flow of various streams into a river at different points as they make their way downstream to the ocean (Howlett et al 2014).

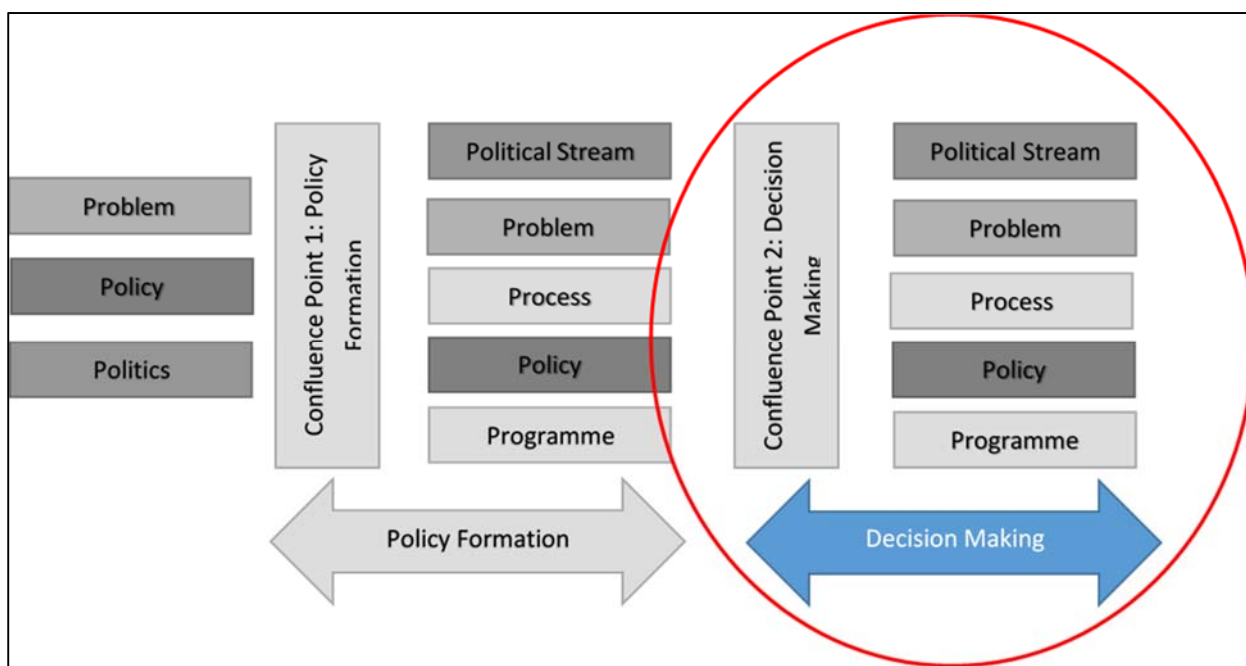


Figure 3.3: Five-stream confluence model (Adapted from Howlett et al 2014)

The starting point for this model is Kingdon's three streams (problems, policies and politics) and the first confluence point is the convergence of the three streams in the agenda-setting phase. The agenda-setting phase marks the beginning of policy formation where the streams converge into a turbulent whirlpool where policy makers decide how to proceed and consider the validity of initial assumptions about the policy. The second confluence point is the end of policy formation and the beginning of decision-making. Here, the three initial agenda-setting streams (problem, policies and politics) include two additional streams: first, a process stream designed to examine options, support authoritative decisions and so on, and set up a timetable for future deliberations; and second, a programme stream to put in place new programme instruments and integrate them with established ones.

Unlike the original three streams model, complexity is appreciated by this model since it assists in explaining different types of policy making and the way in which one particular stream can affect the parameters of other streams during the course of the entire policy cycle. The effect of different streams on each other during the course of the policy cycle suggests different kinds of policy-making at each intersection point depending on which stream guides the current at a particular point in the policy-making process (Howlett et al 2014). The analysis of decision-making through evaluation research will make use of the adapted streams model of policy evaluation (as proposed by Howlett et al (2014)) as an appropriate way of analyzing the horizontal activities in decision-making rather than by phases.

Batley (1993) proposes a framework for analysis of policies and frameworks in order to aid in greater political sensitivity and appropriateness of planning and management to the context. This analysis entails the following, and served as a baseline for analysis along the adapted streams model:

1. Describing the socio-economic interests which are present and likely to be affected;
2. Identifying the location of power within government i.e. organisational arrangements in decision-making;
3. Identifying external influences (those that were identified in Step 1) on decision-making;
4. Understanding the informal procedures of policy formation and implementation – the influence of networks and connections; and
5. Understanding the dynamics of the organisation i.e. does it contribute to wide participation or elite domination.

The decision-making evaluation process will use the adapted streams model evaluation framework to evaluate 1) the decision to amend the urban edge line in Schaapkraal (Philippi), 2) the decision to amend the urban edge line in Wescape (Milnerton) and 3) the decision to terminate the urban edge line and policy in the CTSDF 2017. This analyses make use of secondary data from policies and government reports and minutes, literature and conference proceedings, as well as structured interviews with relevant role players (semi-structured questionnaire to be found in Annexure A).

The evaluation was done by considering the following:

1. **Problem Stream:** In this analysis, the context of the decision, referring specifically to the locational context and the socio-economic context of the urban edge line amendment and policy termination were discussed.
2. **Process Stream:** The informal and formal procedures of policy amendment were discussed in this stream.
3. **Policy Stream:** the content and prescriptions of existing policy documentation as pertaining to the proposed urban edge line amendments were put forward in this stream.

4. **Programme Stream:** This stream reflected on the actual process that was followed during decision-making as well as the outcome of these decisions
5. **Political Stream:** In this analysis the research reflected on the location of political and decision-making power within the City of Cape Town, the external influences that contributed to decisions as well as the dynamics of the organization, and which approach to decision-making can be identified in the decisions under evaluation.

3.5 Evaluation of current urban growth management policy

There are disagreements among social scientists as to what the main causes of behaviour in policy decision-making are. John (2012: 41) describes a number of political science approaches that can help explain the causes and factors influencing policy decision-making. Rigorous analysis of the Cape Town urban edge policy, as described in the methodology, will demonstrate how these four 'approaches' or 'explanations' explain the termination of the policy (ibid):

1. Institutional approaches: political organisations, legal systems and bureaucracies structure public decisions and policy outcomes;
2. Groups and network approaches: associations and informal relationships, both within and outside political institutions, shape decisions and outcomes;
3. Exogenous approaches: factors external to the political system determine the decisions of public actors and affect policy outputs and outcomes; and
4. Rational actor approaches: the preferences and bargaining of actors explain decisions and outcomes.

Following the results of the narrative and the evaluation research components, the study will identify the factors that intended to guide decision-making regarding the urban edge line and policy, and secondly identify the factors, role-players and processes that actually guided decision-making in Schaapkraal, Wescape and the termination of the Cape Town urban edge line and policy.

Table 3.1 illustrates the methodological approach and associated chapter outline for the remainder of the thesis.

Table 3.1: Methodology and chapter outline

Research component	Methodology	Data sources	Objective	Location of research in thesis
Historical/narrative analysis	Historical Institutional Analysis Stages of policy dismantling Policy termination	Literature Semi-structured interviews Policy	Identify the institutional trajectory of the CoCT urban edge line and policy	Chapters 4 and 5
Policy outcome evaluation	Empirical analysis Urban sprawl index	Land cover data Spatial metrics	Analyse the spatial impact of the CoCT urban edge line and policy on the footprint of the city	Chapter 6
Decision-making process evaluation	Adapted streams model of policy analysis	Literature Policy Organizational reports and minutes of meetings Semi-structured interviews	Analyse the decision-making process in Schaapkraal, Wescape and the termination of the CoCT urban edge line and policy	Chapter 7
Conclusion	Interpretation of results and reflection	Research Results	Identify the factors that were intended to guide urban edge decision making, and identify factors that actually guided urban edge decision making	Chapter 8

3.6 Conclusion

The methodological approach in the research makes use of narrative/historical analysis as well as evaluation research. The narrative/historical analysis will make use of a historical institutional approach that attempts to determine the institutional trajectory of the CoCT urban edge line and policy. The evaluation research consists of two parts: the first part is the empirical measurement of the outcome of the CoCT urban edge line and policy, by analysing the spatial impact of the urban edge line and policy on spatial development patterns in Cape Town. The second part of the evaluation research will study the urban edge line and development edges policy decision-making process in Schaapkraal, Wescape, as well as the termination of the urban edge line and policy in the CTSDF 2017. The decision-making

process will make use of the adapted streams model of policy evaluation as proposed by Howlett et al 2014. Following the results from the historical analysis and the evaluation research, factors that inteded to guide urban edge decision-making as well as factors that actually guided urban edge decision-making in Cape Town will be identified.

CHAPTER 4: URBAN GROWTH MANAGEMENT, PLANNING AND POWER IN THE GLOBAL SOUTH¹

4.1 Introduction

A defining feature of 20th-century metropolitan urban development in most of the world's largest cities is the dominance of low density suburban and peri-urban landscapes (sometimes referred to as urban sprawl). However, the sustainability of the extent of this conventional market-driven form of urban development is questioned. Until recently, the debate has focussed on the implications for infrastructure services provision, and travel and fuel consumption, but the effects of urban forms on ecology, wildlife, natural resources, social equity, behaviour and economic well-being are increasingly recognised as equally important to urban sustainability (Williams et al 2000; Badcock 2001; Breheny 2002; Bruegman 2003; Rik & William 2013; Vojnovic 2014). The notion of achieving a more compact urban form has gained popularity in the debate on the most sustainable urban form. Central to this theme is the evolution of an urban growth management discourse over the past century, as large cities trial different techniques towards achieving more sustainable urban forms. This chapter explores the evolution of the urban growth management discourse in the global south. The objective is to illustrate some of the implications these practices present to developing countries.

4.2 Introduction to southern cities

The end of the twentieth century closed with the debate and controversy around the Chicago School of Urban Sociology- the idea of cities as centripetal social and economic attractions and the dominance of concentration of activities (Dear 2002; Sassen 2000; Short 1971) - versus the Los Angeles School of postmodern geography, marked by ever expanding landscapes and evolving into new forms of diverse and heterogeneous metropolises (Dear 2013; Soja 2000; Dear & Flusty 1998; Sudjik 1992; Davis 1990). As a result of historically unprecedented urbanisation however, the urban future of the twenty first century lay in cities of the global south, such as Shanghai, Cairo, Mumbai, Mexico City, Rio de Janeiro, Johannesburg, Singapore and Dubai (Roy 2014). According to Comaroff and Comaroff (2012), 'cities of the south' refers to cities sharing one or more diverse features, not least of which their colonial histories. 'The global south' it is argued, assumes meaning not by virtue of its content, but of its context. As a result of its volatility to everyday material and political processes, an exact definition and demarcation of the division between the global north and south is difficult to draw, save for the fact that "south" always refers to a location outside Euro-America (Comaroff & Comaroff 2012). The south, and cities of the south are marked both by a political economy of insufficient resources to provide on average a decent life for all, and by postcolonial disabilities (Mabin 2014). Cities that were formerly considered part of the "third world"² was long equated with the experience of European colonialism especially in the management of land, housing and services delivery (Parnell 2014). The distinctive social characteristic of the colonial city was described almost thirty years ago as "the fact of race" (King 1990:34). The spatial separation of races reinforcing cultural differences and unequal power relations was strongly developed in the cities created by European colonial expansion (Home 2014). This legacy of colonialism still distinguishes the form of most cities in the global south from those in the north.

¹ Large parts of this chapter was published as Horn A 2014. Urban growth management best practices: towards implications for the developing world. *International Planning Studies*. DOI: 10.1080/13563475.2014.942513

² To some authors "south" substitutes what used to be called the "third world" (Comaroff et al 2012). However, cities considered as part of the "south" are associated with a common ideological history i.e. colonialism (Aravamudan 2012), extending the definition of "third world" to mean more than a current economic/political condition.

With the end of colonialism and segregationist rule, cities in the south experienced levels of urbanisation associated with much lower levels of per capita income (and consequent economic growth) and agricultural productivity and industrialisation not sufficient to sustain the growth of their cities (Jenks et al. 2008; Badcock 2002; Fekade 2000; Castells 1976). The State of the World's Cities report produced by the UN habitat states that for every 10 urban residents in the world, more than seven are found in developing countries (UN-habitat 2012). Averaging across the post-colonial world, the rate of urbanisation is unprecedented in recorded history. In 1950, 340 million people, or approximately 36 per cent of the world's urban dwellers, lived in post-colonial cities; by 2010 this had increased eightfold to 2.7 billion people, or 80 per cent (Sheppard 2014). Global environmental change and demographic transition presents urban planners in the global south with issues that have never before been encountered. The majority of new urban dwellers in cities of the south will be poor, and therefore it is argued that the future of humanity in urban areas will depend on cities' ability to respond to this growth. Rapid urban growth is taking place in those parts of the world that are least able to cope in terms of their capacity to provide the necessary infrastructure and services, the ability of urban dwellers to pay for these services, and the ability of urban economies to generate enough jobs and income (Parnell, Pieterse & Watson 2009).

In these immense urban agglomerations, which often show a dramatic sprawl accompanied by an explosive population growth, the environmental and social consequences are disastrous. National, regional and local spatial planning policies are usually not coupled with serious, sustainable urban planning measures as sustainability in most cases is subservient to basic survival (Allen 2014). In the absence of planning, spatial forms in these cities are largely driven by the ad hoc efforts of low-income households to secure land that is affordable and in a reasonable location. This process leads to "new urban forms as the countryside begins to urbanise, as can be seen in vast stretches of rural India, Bangladesh, Pakistan, China, Indonesia, Egypt, Rwanda and many other poorer countries" (ibid: 522). Large cities also spread out and incorporate nearby towns, leading to continuous belts of settlements as the poor seek proximity to the city, primarily on the urban edge. These sprawling peripheries are however almost entirely unserved and unregulated, and makes up the bulk of informal settlements. It is in these areas that most urban growth is taking place. In these peripheral areas, providing services infrastructure is too costly both for urban governments and for those who live there. The level of informality in these areas further renders the inhabitants vulnerable to natural hazards and environmental damage (Parnell et al 2009).

The mega-cities of the south do not simply follow the development path of cities in the more technologically developed worlds, "they are not simply at an earlier stage in a common path of development, but are rather the products of their own specific historical developments coupled with the strong influence of their positions within the world of globalisation, threads of colonialization, uneven development, competition, division of labour and exploitation" (Jenks et al 2008: 11). Because of an absence of detailed city histories, the precise influence of colonial power on cities of the south remain unclear. However it is consistently affirmed that the colonial relationship continues its influence in cities of the south long after the end of colonialism (Parnell 2014). The practice of town planning historically inherited many principles from the colonial north. Modernist planning principles, such as planning for strict separation of land uses and functions, and planning for health and safety regulations to mitigate poor living conditions in central cities are two examples of planning practices directly associated with planning in colonial Britain during the 19th century (Home 2014; Huchzermeyer 2014; Watson 2014). From literature, it is evident however that either because of resistance, oversight or neglect, the modern town planning regime was incapable of completely displacing other regimes of

power and governmentality in cities of the south (Parnell 2014; see also Huchzermeyer 2014 and Watson 2014).

The emphasis on planners and decision-making processes emerging from the global north is of little use to those working in the “diverse settings of the south, where decision-making is generally less transparent and organised, and where public participation efforts are often perceived as lip service of forms of co-optation, in a more uncompromising development environment characterised by creating facts on the ground” (Yiftachel 2006 213). From a southern perspective, the credibility of theory is challenged by southern realities such as liberalism not being a stable constitutional order, but rather a sectoral and mainly economic agenda (ibid). Chapter 2 provided an overview of urban growth management, planning and politics in the global north. The purpose of the following sections is to elaborate on planning, urban growth management and governance practices in the south by way of interpreting the theoretical application of these concepts in a southern context.

4.3 Masterplanning and compact cities in the global south

The speed of urbanisation in the postcolonial era nearly overwhelmed these new capital cities, and their long-range, comprehensive modernist plans were too inflexible to accommodate rapid changes. While the Abuja master plan envisaged the population of Abuja reaching 1.64-million by 2000, in 2007 the city’s estimated daytime population is 7-million people. In Dodoma, informal settlements accounted for the vast majority of urban growth, “although the city had been specifically designed to avoid that urban trend” (Abubakar & Doan 2017: 550). Although Gaborone’s population was planned to grow to a maximum of 20,000 by 1991, about 50 per cent of Botswana’s population lived within a radius of 100 kilometres of Gaborone and “by 2001 the city population of 185,891 accounted for half of the nation’s urban population” (Abubakar & Doan 2017: 549).

For many cities of the developing world, colonialism played a dominant role in shaping their urban form. The predominant objective of planning in colonial mother-cities was dealing with poor health and living conditions, therefore it is to be expected that an approach similar to that followed in post-war Britain would appear beneficial in southern post-colonial contexts (Bekker & Fourchard 2013; Porter 2010; Njoh 2007). However, the application of these strategies in local contexts has been met by opposition and critique relating to the little regard developing countries’ governments had for urban land markets and market side-effects during the application of land-use controls. This has led to a negative perception of traditional masterplanning or blueprint planning, and the argument that planning views urban growth as negative, aiming to limit urban growth, regardless of whether it will be appropriate or even achievable (Devas 1993). Masterplanning has also been criticised for separating plan-making from decisions about budgets, infrastructure and service provision, and even though it remains a useful tool for politicians to illustrate intent (Ravetz 1986), it is removed from reality.

Traditionally, the concept of masterplanning is the conceptualisation of a blueprint plan illustrating a particular vision of a ‘good’ city, which often resembles the thinking of some of the early urban modernists such as Le Corbusier and Howard (Fainstein 2013; Watson 2009; Fishman 1998; Taylor 1998). The main considerations in the shaping of urban form during the early modernist period were aesthetics, urban efficiency and modernisation as they informed the layout of the physical pattern of land uses and transportation routes, and in the process constrained private investment (Friedman 2005). This approach to planning was widely practised in the north at the beginning of the early 20th-century and was accompanied by zoning instruments that succeeded in protecting individual assets and property prices and preventing the influx of lower-income residents into urban core areas.

Masterplanning in the south was viewed by many as an elitist instrument that excluded participation by the poorer segments of society (Watson 2009); However, in a period where colonialism was rife, the approach found expression in many planning structures of colonies at the time. Beginning in the 1970s, masterplanning became the target of severe criticism in the postcolonial world as a result of its assumptions regarding the city and its subsequent inability to influence markets and physical development as a way of shaping spatial change in cities (Todes 2012; Watson 2009).

The perception of masterplanning in its prime was that urban governments were facilitating social and spatial exclusion by imposing inappropriate and elitist laws and regulations, where people had to step outside the (planning) law in order to secure land and shelter (Fernandes 2003). As a response to these criticisms, many cities started to explore alternative forms of strategic spatial planning that offered a more flexible approach, focused on key-interventions, and provided a proper link to implementation and budgets (Todes 2012). However, southern efforts towards becoming strategic and sectorally coordinated in guiding spatial development have elicited criticism similar to that aimed at masterplanning and related to spatial plans' poor ability to dictate to private investors, the limitations of direct governmental interventions in the face of urban uncertainties, rapidly changing urban environments and unpredictable urban growth (Odendaal & Mccann 2016; Todes 2012; Friedman 2005). In addition, the underlying implementation framework of zoning has persisted in the south, further contributing to poor follow-through on plan implementation resulting from unreformed land use management systems (Watson 2009; Kihato & Berrisford 2006). There is a growing consensus that planning in the global south is largely undertaken by communities and informal providers rather than the state. In addition, the increasing role of the neoliberal agenda and the prominence of market forces in decision-making see economic and political processes becoming more open to negotiation and informalisation. Simone (2000) observes that in this situation, networks with the state is valuable in negotiating preferential access to resources or as a way of circumventing control and regulation. Watson (2009) concludes that the relationship between the modern state and citizens, both formal and informal, becomes underregulated and dependant on alliance-making and deal-breaking, and based on this, the assumption of stable, cohesive citizenry that is responsive to a regulatory planning vision must be questioned.

The debate on the merits of compact city policies for cities in the global south has been detailed by Burgess (2009) along the ostensible benefits of compact cities. His main arguments against support for compact cities in developing countries relate to the following:

- The argument that higher densities will lead to cheaper infrastructure costs and the absorption of spare inner city capacity is contentious in developing countries, since most cities in the developing world are naturally densifying and there is no spare capacity to be filled. The cost of servicing these dense and often disorganised settlement layouts could also prove higher than servicing middle-income neighbourhoods. Therefore, the savings on infrastructure costs involved in densification may not be substantial.
- In order for a compact city to contribute to more effective public transport in the global south, effective demand and higher incomes are also needed to make this work, not only the fact that there exists a large number of people in need of public transport.
- The argument that densification will allow derelict land to be brought into productive use has limited applicability for most cities in the developing world. In developing countries, some of the poor live in the city centre at very high densities, and others live on the urban periphery in middle density squatter settlements and illegal subdivisions. Inner city densification is therefore not

desirable given the existing rates of overcrowding and will only lead to further deterioration of social and environmental conditions.

- Attempts to manipulate the urban form in the global south have been limited due to a shift from physical planning to socio-economic planning, but also as a result of the high costs associated with such radical urban transformation and the limited resources available to developing world government organisations.

Megacities in developing countries represent the most extreme examples of urban sprawl that planners are faced with. It might even be argued that these cities have already developed beyond a stage where anything useful can be achieved by a compact city approach (Jones 2009). The benefits (if any) of compact city development in the global south appears to be in part dependent on local conditions, however, many cities in this part of the world have implemented policies towards achieving more compact urban environments. These will be discussed in the following section.

4.4 Urban growth management policy in the global south

For the past three decades, sustainable development has become a priority theme in planning and urban management in Europe and North America, primarily driven by the ills resulting from urban sprawl in North American and European cities since the Second World War. The intense urbanisation and transformation of these cities into megalopolises and mega-cities have since been witnessed in Asian cities, and the negative consequences of associated sprawl have prompted Asian governments to introduce a variety of approaches to control sprawl and limit further damage to their limited resources (Teriman, Yigitcanlar & Mayere 2009). In 2017, UN-Habitat hosted a global meeting regarding the planning of compact cities. The particular aim of the meeting was to define the possibilities and limits of applying the principles of compact cities and densification as tools for urban transformation, and to establish good practices in this regard. At the meeting it was concluded that such interventions, when they are guided by solid urban planning instruments, are based on realistic financial strategies and can therefore support the development of quality density in a diversity of urban settings (States News Service 2017).

For several decades, urban containment policies have been applied in the global north as a land rationing strategy, preventing development on large tracts of land that would otherwise be developable. Since the mid 1980s, this approach has evolved into new policy objectives and geographies, with measures to contain informal growth over valuable environmental areas becoming part of the planning methodology applied in fast peri-urbanising areas of the global south (Allen 2014). In the global south, two distinct forces drive peri-urban development: firstly, the informal accretion of migrants to the city, unable to afford land and housing in the city and as a result residing in (often) slumlike environments at the urban periphery, and secondly, private sector (neoliberalist) driven urban development favouring middle class value-driven residential development outside urban centres. Compact city advocates, assuming that peri-urban borders can be controlled by regulatory land use planning instruments often ignore the political economy that drives this peri-urbanisation in the first place (Allen 2014). Explicit literature regarding the use of growth boundaries and edges as growth management instruments in cities in the south tend to be limited. However, given the distinct setting of urbanisation and informal urban expansion at the periphery, research in cities in India, Africa, Latin America and the Middle East have shown marginal success in the application of growth-limiting instruments such as urban edges (Kombe 2005; Maburak 2004; Garba 2004; Fekade 2000; Razin 1998; Turner 1992). More recently in the cities of China, India, the Middle East and Northern Africa the trend in growth management policy

has been the establishment of mega projects or new towns on greenfield sites removed from central cities and its obstacles to development such as NIMBYism and high land prices (Harrison 2017; ; Cain 2014; Watson 2014b). Examples of urban growth management trends and policies are discussed below.

In the past two decades, developing countries have seen a wave of construction of new satellite towns around booming cities, primarily as a way of relieving development pressure from the overcrowding of inner city areas (Watson 2014b). In Asia, China alone has planned around 100 new towns of which several have already been constructed (Abubakar & Doan 2017). China³ has the largest population in the world and the second largest economy. Its explosive urban surge in the last 30 years is linked to its dramatic economic transition from an agrarian to an industrial society. The government has played a key role in shaping this country. Until the late 1970s urbanisation was resisted while favouring rural development. During this period the urban population was growing by less than 5 million a year, compared to 20 million a year in the last decade. Rural industrialisation spurred migration to smaller towns and villages. A long standing objective was to constrain the growth of large cities by building satellite cities around them. These now form the basis of clusters of cities with tens of millions of people within each one of them (Turok 2014). In China, where one of the major reasons for curbing sprawl is to protect valuable agricultural land, a top-down, centralist approach is followed (Zhang 2000). The central government attempts to control sprawl from both a supply and a demand side. From the supply side, every person who converts agricultural land to another use has to recreate an equal amount of land for agricultural purposes. According to Du Plessis (2004: 18) this is “typically land that was previously developed for urban uses and idle land in rural areas”. Secondly, in terms of a land quota system, every municipality is only allowed to convert a certain amount of land into non-agricultural uses. The central government decides on these quotas and the provincial governments manage the quotas. Any new conversion from agricultural land to other uses is, however, decided upon by the central government. Finally, by assisting farmers, agricultural land is made more expensive, which makes it harder for farmers to sell their land and also less likely that they should fall prey to land speculation (Du Plessis 2004). Successful aspects of China’s approach to managing urban growth have been attributed to its powerful state steering mechanism, or a “very visible hand”, as cited by Chen (2014:161). In Beijing, in response to the worsening environmental and social problems caused by the high density of the city centre and urban sprawl, the state government and Beijing municipality have been implementing a decentralised concentration strategy since the 1980s. The aims of this decentralised-concentration strategy were to limit population growth and reduce population density in the city centre and to encourage concentrated, contained developments in suburban planned areas, which are also called peripheral constellations (Jenks et al 2008). Despite this approach to urban growth management, the encouragement of local growth, coupled with increased decentralisation of decision-making, have fundamentally changed land development and contributed to serious urban sprawl in Beijing (Zhao 2010). Industrial development on the fringe as well as low-density gated communities are the largest contributors to increased sprawl. The reasons for the proliferation of sprawl in Beijing have been described as, firstly, increased local fiscal responsibility leading to the promotion of local industrialisation by local governments, and, secondly, transferable land use rights from local governments to developers for a fee, meaning that local governments are able to obtain large fiscal benefits from land development. Zhao (2010) argues that the ability of urban growth management to

³ Considering China’s massive population, low per capita income, uneven distribution of wealth and regional disparities, it is still a developing economy compared to the global north. In addition, China ranks at the middle level of the Human Development Index (HDI) positioning it closer to other cities of the global south than those in the north (IDSA 2014).

limit urban sprawl depends on the responsible application of the regulations and instruments employed by local authorities.

In Hong Kong, the city's geographical constraints act as a natural containment mechanism. The city's intentional containment strategy makes use of strict zoning regulations, a greenbelt and concerted efforts towards promoting high-frequency public transport. This strategy has contributed towards the creation of a compact city-region with high-density urban development (Teriman et al. 2009).

Kuala Lumpur in Malaysia's urban management strategy follows a top-down approach as well where the countrywide National Physical Plan (NPP) and the National Urbanisation Policy informs the city administration. The NPP puts emphasis on selective concentration of strategic urban centres, whilst concentrating urban growth in existing and planned conurbations. Urban containment is primarily achieved via zoning and infill mechanisms, the overall effectiveness thereof ultimately residing in the limited opportunities provided by these statutory mechanisms. Kuala Lumpur is said to be less compact than Hong Kong, mainly as a result of greater reliance on market forces to dictate urban development in the absence of a specific containment strategy (Teriman et al 2009).

India has the tenth largest economy in the world and the second largest population. Its colonial history and complex religious and ethnic divisions left a legacy of a backward economy, poor transport system and inefficient state mechanisms. India's urbanisation has been oriented towards large cities because of the possibility of finding employment, however this has exacerbated problems of concentrated poverty and poor living conditions (Turok 2014). A key feature of Indian urbanisation is the illegal subdivision of undeveloped land into residential plots. These kinds of developments act as attachments to planned urban areas where vacant undeveloped land is divided into plots and sold to individuals who construct medium to high rise buildings. As these developments are unplanned and unauthorised, infrastructure is only provided at a later stage, leading in the short term to slum-like development instead of beneficial compact development (Jones 2009). Some of the physical growth has spilled over into satellite towns. Large factories, call centres and other businesses often locate beyond metropolitan limits because of environmental restrictions within the city (Turok 2014). Initial attempts at urban containment were made on the assumption that rural to urban migration can be stopped or slowed down and that people can be relocated from existing urban areas. The draft Six Plan advocated the slowing down of growth in metropolitan cities and the promotion of growth in small and medium-sized towns. This was coupled with an industrial location policy which banned the setting-up of new industries within certain large cities. It became clear, however, that "without draconian measures of control, there were no real changes in development patterns" (Turner 1992: 120). Compact city policy became part of Delhi's planning in 1990 when the Delhi Development Authority made proposals for increased densification and new town development in the masterplan. Delhi exhibits an inverted compact urban form, with low-rise residential developments occupying the centre of the city and high-rise development towards the urban periphery. Densification strategies have achieved little more than legitimising existing illegal high-rise villages, and house builders and contractors continue to contravene the city's attempt at regularising appropriate densities. As a result of the inverted compact development model, (a gross density of 123 persons per hectare), the city still suffers all the ills of urban sprawl including the wasteful use of energy, resources and time (Kumar 2009) despite its maintenance of a greenbelt intended to limit the outward growth of the urban area. Public ownership of land has been cited as the most powerful and likely tool to ensure sustainable compact urban development in Delhi, where the land is in public ownership and development rights are vested in the Delhi Development Authority (Jones 2009). Recent national development plans recognise the value of large cities, however

criticize the concentrated pattern of growth. Instead these policies seek to promote spatially balanced urbanisation through satellite towns, small towns and new townships (Turok 2014).

In Latin America, where planning and housing typologies were informed more by compact southern European and not British spatial standards, and where colonialism ended earlier than in Africa and Asia, cities were less rigorously planned and segregated. Urban sprawl in most Latin American metropolitan regions presents a landscape of poverty, informal and illegal patterns of land use, a lack of infrastructure, public facilities and basic services (Alfonso 2014; Powell & Van Praag 2010; Juan & Candida 2010; Ward 2009). This pattern is in contrast to American and European cities where suburban sprawl is characterised by residential zones for high and middle-income groups, and highly valued commercial and retail land uses that are accessible via a combination of public and private transport. Other significant institutional differences between Latin American and Eurocentric urban authorities are the former's relatively recent demographic institutions and participatory processes and its limited human and fiscal capacity to implement and enforce urban norms and regulations. Demographic and economic changes influence new trends in residential development in Latin America, ranging from large projects for middle- and low-income groups to exclusive gated communities co-existing with commercial centres along highways. The tendency towards sprawling growth in unserved peripheral areas contrasts with reduced residential activities in central city areas that are well-served with infrastructure (Alfonso 2014; Lungo 2001). Several new towns are also being established in Latin America (Borsdorf, Hidalgo & Sanchez 2007).

In Lima, peri-urban informal expansion has historically not just been tolerated, but actively enabled by local governments through the provision of facilities for occupying urban land outside formal land tenure provisions. This process of informal urbanism has produced orderly neighbourhoods at the periphery of the city, and over time has become the main means for the poor in Lima to access land and housing. However, a recent shift to curbing informal peri-urbanisation, both through restrictive land-use policies and through limiting access to services by the poor is to a large degree underpinned by land market speculation and land developers' politics (Allen 2014).

The metropolitan area of Mexico aims to discourage the expansion of urban areas by promoting intensification of land uses. The main vehicles to achieve compaction is by maintaining a balance in regional developments with the rest of the national territory, increasing population density in Mexico City in order to use existing infrastructure optimally, and to establish strict controls to avoid settlements in protected natural areas of the metropolitan region (OECD 2012). The key shortcoming of containment policies in Mexico is firstly, the fact that environmental land is over-regulated, often resulting in no enforcement at all. Secondly, urban space and environmentally valuable land are treated as two separate realities. This means that environmental regulation ignores the reality of insufficient land for housing for the poor, and urban development policies ignore the importance of protecting critical environmental resources (Allen 2014). By working in parallel instead of towards the same goal, Allen (2014) describe the result of these two sets of policies as creating differential sustainability i.e. legitimising informal expansion onto vulnerable environmental areas and simultaneously rigorously protecting environmental resources in formal peripheral areas.

The number of towns and cities in Brazil with over 20 000 inhabitants grew from 59 in 1940 to 867 in 2010 (Turok 2014). Brazil's urbanisation occurred despite opposition to it from most political regimes. It was mainly resisted due to the administrative, social and environmental problems it was thought to create. However, this approach seemed to have worsened conditions. Failure to prepare for population growth damaged the city's ability to expand in a sensible manner (*ibid*). After the forced relocation of

the poor to peripheral areas, informal settlements were increasingly tolerated. They gradually began to be serviced, legalised and incorporated into cities as permanent neighbourhoods (Huchzermeyer 2014.) In Brazil the process of compaction is steered by “active and enabled local governments using a range of urban management instruments” that result in physical compactness and the optimal use of infrastructure and land (Acioly Jr. 2009: 134). Policies of liberalisation of zoning and land uses are becoming increasingly popular amongst urban managers and city planning authorities in Brazil. An enabled local government, accountable to its population, is claimed to be a key prerequisite to resolving urban equity issues and maximising the benefits of a compact city approach in Brazil. Cities like Rio de Janeiro, Sao Paulo, Curitiba and Santo Andre are relaxing land-use restrictions and speeding up decisions by means of negotiations in exchange for financial contributions from developers and landowners.

In Santiago, Chile, the reliance on the market to regulate land and housing allocation has contributed to the physical expansion of the urban area. There were no significant measures for urban planning in Santiago until the early twentieth century. In 1914 the Law for Plans and Urban Limits was promulgated. At the end of the 1960s, an unprecedented process of squatter settlement occupation of land took place via land invasions. During the 1980s neoliberal policies encouraged free market development, who subsequently displaced the state as the main force in driving the expansion of the city. This process was legitimised by the National Urban Development Policy of 1979, which adjusted all the instruments and norms of urban planning in Chile to the market economy. The main principles of this policy were noted as:

- Land was not considered a scarce resource;
- A flexible planning system was required with minimum state intervention;
- Natural growth of urban areas should be allowed in line with market trends; and
- The state should promote and support an open housing market.

As a result of the adverse effects of this policy, i.e. its contribution to increased socio-spatial segregation and a land development pattern unsupported by services infrastructure, an adjusted policy was promulgated in 1985 which reiterated the importance of planning at a state level and declared land as a scarce resource. This current framework is, however, difficult to implement given that the National Law of Urbanism is encouraging high levels of urbanisation. There have been few initiatives to curb urban expansion in Chile, and urban planning and management continue to be seen as segregated without a holistic vision. In general urban policies and norms in Chile over the last three decades have generated a process of continuous physical expansion. This has resulted in a greater urban and social segregation, an increase in disparity in access to urban services, a worsening of local living conditions and increased environmental contamination (Fadda, Jiron & Allen 2009).

In Curitiba and Sao Paulo the linking of densification strategies to efficient and reliable public transport in urban development has witnessed successful compaction, even with regards to the provision of social housing within the urban footprint (Acioly Jr. 2009). Bogota and Curitiba are known worldwide for their bus-based public transport systems. Bus Rapid Transit systems provide medium to high capacity transport. The system comprises buses running on segregated bus lanes, trunk feeder line operation, pre-boarding fare collection, level access from passenger platforms to the bus floor providing faster boarding and the use of information and communication technologies to optimize operation. Curitiba began implementing its BRT in the 1970s, and Bogota in the 2000s. Curitiba has “81km of dedicated bus lanes, 22 interchange terminals and more than 350 special bus platforms along the main routes, comprising the city’s BRT system” (Duarte, Gadda & Luna 2016: 9). The success of the BRT system is attributed to a complex network of feeder lines, with different bus types ranging from express buses to

inter-neighbourhood buses. This network of feeder lines is managed and planned by the city government but operated privately. Bogota's system comprises of 103km of segregated routes and 13 interchange terminals. The high-cost benefit of both these countries' public transport systems is considered very suitable for cities in the developing world (ibid 2016).

Africa's population has been growing 2.3 percent per year, more than double that of Asia at 1 percent. By the year 2025 it is predicted that the majority of the poor in Africa will be living in urban as opposed to rural areas (Buckley & Kallergis 2014). Research on urban containment strategies in Africa have elevated the effects of land speculation on urban sprawl. In African cities where land markets and governance systems are weak, land speculation is rife. This leads to a situation where developers looking for land for housing must find land far away from city centres and the built-up area, the process earlier on referred to as peri-urbanisation. This is fuelled by land speculators holding on to land parcels in and around the city, expecting land values to increase. In effect cities expand their footprints while empty plots of land remain in inner-city areas (UNFPA 2007). In Africa, many projects for the development of new satellite towns are in planning stage. The purpose of these towns are to reduce overcrowding and promote entrepreneurship (Abubakar & Doan 2017). The renewed interest in the development of new towns stems from the continent's rapid urbanisation, as well as the frustration with land development conditions and land speculation leading to a "desire to leapfrog over overcrowding and dilapidated housing conditions onto new greenfield land" (Watson 2014b: 6). As a result, several new towns have been designed as satellites by international planning and architectural consultants using a modernist master planning approach to relieve the population pressures on some major African cities and escape their urban decay. These include Eko Atlantic City in Lagos, Appolonia and Hope City in Accra, Tatu City and Konza Techno City in Kenya, Roma Park in Zambia, Kilamba in Angola, Kigamboni in Tanzania, and 15 new towns planned for Nairobi. The promoters of these projects promise some 'impressive amenities and functioning systems that will enable the urban lifestyle most Western cities provide (Abubakar & Doan 2017). According to Watson (2014b), the current new towns being built in Africa are not only 'urban fantasies' that are way beyond the reach of most citizens who are extremely poor and live informally, but often lead to the "eviction and relocation of vulnerable low-income residents" (Watson 2014b: 12). In addition, the proposed new towns increase the possibility of worsening inequalities and marginalisation.

In Egypt informal urbanisation and the illegal extensions of buildings exacerbate both the positive and negative effects of compaction. This phenomenon is normally the result of a spontaneous process coupled with inadequate housing and urban policies (Acioly Jr. 2009). A total population of approximately 62.5 million inhabitants (in 1999) is living on only 5% of the total national territory. The remaining 95% of the land is desert. "The demand for urban land is enormous, yet the only available land is the scarce, privately owned fertile agricultural land which the country needs to feed a rapidly growing population" (Acioly Jr 2009: 128). The process of transformation of agricultural land to urban use is under military jurisdiction – a regime that imposes severe sanctions in order to halt urban expansion. On the other hand ownership of outlying desert land is a state monopoly and the land is not immediately available for development. Given these restrictions, the only option for growth of cities like Cairo and Giza are the peripheral desert areas, or the infill of available and increasingly scarce vacant land within the urban fabric (ibid). The Egyptian government has embarked on a programme of urban restructuring and has pursued policies of spatial decentralisation and deconcentration of population in response to the challenges of over densification in urban areas and to relieve development pressure on fertile agricultural land. A programme of new towns was drawn up and several were built in the desert.

These cities, however, faced enormous difficulties and were “unable to attract the levels of population and private investment required to achieve self-sustained development” (Acioly Jr. 2009: 134).

High population growth rates and unresponsive city authorities contribute to massive residential sprawl in Accra, Ghana. The influx of people has been exacerbated by a national policy of compulsory land acquisition for public purposes, which, in the absence of spatial frameworks, results in inefficient low-density development. Another key factor which facilitated sprawl is the (often) donor-funded road corridor infrastructure in and out of the city of Accra, encouraging peri-urban development located between cities and rural areas (Owusus 2013). After consideration of five different containment strategies (i.e. urban consolidation, multi-city structure, twin city, satellite towns and laissez-faire), and taking into account factors such as social and environmental impacts, transport inefficiencies, administrative difficulties, cost effectiveness, land economics and flexibility to meet future needs, the Greater Accra Metropolitan Area Strategic Plan concluded that a single plan will not be able to contain sprawl in Accra. As such, a mixed-concept plan involving urban consolidation, a twin-city and a multi-city approach was proposed. A key prominent feature of this containment strategy was the extensive use of greenbelts and natural boundaries to define the limit of spatial expansion of the metropolitan area (*ibid*). Recent evidence indicate the footprint of Accra going far beyond the limits set by the strategic plan. A major contributor to the failure of the containment approach is the privately owned land under customary institutions. Planning remains a public function for local governments, with limited to no control over ownership and acquisition of land. Customary land owners dispose of land for purposes other than what it has been zoned for, and due to delays in obtaining building permits from the local government, developers initiate development prior to receiving necessary approval. The situation is further exacerbated by poor planning and development control institutions (*ibid*).

Approaches to managing urban growth vary distinctly across different cities in the south. In view of rapid urbanisation experienced in all these countries, as well as the peri-urban manifestation of such urbanisation, attempts to control and manage urban growth are commonly found. Most popular among southern cities is the establishment of new/satellite towns to alleviate density and pressure from inner areas. Other approaches to manage urban growth are government acquisition of land, land regularisation through zoning and land use controls, agricultural substitution schemes and public investment in mass transit systems (Zhang 2000). Despite these state attempts to manage urban growth and urbanisation, success in slowing the growth of urban areas and containing urban sprawl have been marginal, mainly as a result of the overwhelming population growth in southern cities. Limited success of government growth management policies can also be attributed to weak enforcement and political interference, which will be discussed in the following section.

4.5 Urban management and policy decision-making in the global south

Neoliberalism was practised in the global north in the 1970s and 1980s under the regimes of Thatcher and Reagan (Veron 2010). It swept through the global south by way of structural adjustment programmes in the 1980s and 1990s and has since become mainstream political practice (Harvey 2005). In the north the practice of neoliberalism meant the dismantling of a functioning Keynesian welfare state, however, in the south the effect was a marked shift away from an interventionist (sometimes developmental) state towards a more retreated, facilitating state (Veron 2010). A number of larger cities in the global south for example Johannesburg, Mumbai, Sao Paulo and Shanghai has responded with neoliberal governance initiatives similar to those in western cities to attract foreign capital and highly skilled labour (Segbers 2007). The inequalities resulting from these have however been more

pronounced than in western cities (Veron 2010). Structural adjustment programmes during the 1980s and 1990s, together with political decentralisation put enormous financial pressure on local authorities. This in turn resulted in greater roles for the private sector and the public in environmental policy and decision-making. New forms of environmental governance involved deregulation, reregulation and public sector reform (McCarthy 2002). In cities in the global south urban infrastructure and environmental amenities are increasingly being provided by the private sector or public-private partnerships. This form of neoliberal governance is not merely a response to economic realities but also an expression of “how power/knowledge is exercised to achieve government objectives regarding the management of urban populations and environments” (Veron 2010: 2833). Rather than relying on the disciplining of individuals, spatial governmentality is applied to influence or improve social order in the neoliberal city. Within what is referred to as spatial governmentality “spaces are segregated and governed through for example gated communities (protected through private security firms), slum removals and the zoning of informal economic activities” (Veron 2010: 2839).

Forms of neoliberal governmentality also often imply the removal of politics and technical expertise from the policy-making process. In India and Latin America for example there is an increased involvement of civil society (the majority of which are well educated and upper middleclass people) and the growing weight of a so called new politics, resulting in economic and political marginalization as well as social exclusion of the poor (Harriss in Veron 2010). The environmental subjectivity projected by the urban middle classes in the global south tend to be elitist and socially unjust, rather than progressive. Generally, spatial, civic and environmental neoliberal governmentality have contributed to growing social inequalities in contemporary metropolises (Veron 2010).

Despite world-wide economic trends market driven urban development has continued in cities in the global south. Neoliberalised state policies “continue to support developer and market-driven processes of urban land development, which focus on the occupation of well-located and serviced space, in demand from both poor communities and private-sector developers” (Watson 2012: 90). Ongoing imperatives for some cities to aspire to world-class status usually result in support for urban projects and urban forms compatible with elite tastes and consumption. Such processes are frequently at the root of growing social and spatial exclusion and they reflect and promote the socio-economic inequalities, which seem to accompany processes of globalization and democratization (*ibid*).

State policies in the global south are influenced by a variety of factors, especially the nature of domestic political structures and the distribution of wealth and income. Haynes (1999) suggests that political elites in the global south are often likely to be major wealth holders with interests in a variety of activities such as mining, commercial farming and other commercial building activities. These activities often result in environmental degradation. Substantive measures to mitigate against this will however only attract the commitment of state officials and politicians if they or their allies will benefit (Haynes 1999). The ability of power holders to enforce state policies differs from country to country, but it is very common in Asian and African countries for the state to find itself often unable to fully implement its policies. This creates conflict over the environment and its resources. The increasingly conflicting political environment has led to the establishment of more and more environmental lobby groups. Struggles against sources of environmental degradation, especially deforestation and the loss of livelihood have emerged as important rallying points for organisations such as India’s Chipko movement, Kenya’s Greenbelt Movement and others in Brazil and Nigeria (*ibid*).

The concept of insurgency planning has been described as a new form of progressive bottom-up planning operating in the face of power in response to the forces of economic globalization (Sandercock

1999). Miraftab (2009) defines insurgent planning as radical planning practices that respond to neoliberal specifics of dominance. These insurgent planning practices she suggests are counter-hegemonic, transgressive and imaginative that can purposefully disrupt domineering relationships of oppressors, and disrupt the status quo. The range of actors that can participate in insurgency planning include community activists and professional planners. Related to this form of planning is what is referred to as informality of planning processes (Watson 2012). Roy (2009) describes these processes as efforts of government to evade the rigidity of urban plans and approval processes and 'flexibilize' or 'informalize' urban development in order to take advantage of or accommodate development pressures. The state itself can therefore be regarded as an "informalized entity, allowing territorial flexibility to confer or withhold land use change or launch development projects" (Watson 2012: 93). Informality according to Roy (2009) is a mode of production of space defined by the territorial logic of deregulation. Case studies in Durban and Quito have however illustrated that the informal actions of the state is not always negative. In these instances, the absence of mandates and policies allowed internal actors to seek creative initiatives and opportunities (Carmin, Anguelovski & Roberts 2012). Whether such informal processes in local government are driven by corruption or positive creativity however depends on the values and energies of the actors involved (Watson 2012).

In the decades prior to 1980, the state in Latin America played a central role in guiding development through policies and planning. However, the fiscal crisis of the 1980s meant that the state had become more dependent on foreign and private investment, and that "once it grew beyond a certain size... the state had been captured by private interests" (Davila 2014: 476). It is within such contexts that the World Bank coined the term 'good governance'. According to the World Bank's strategy for the urban sector and local governments (2000), good governance means inclusion and representation of all groups in the urban society, as well as accountability, integrity and transparency of all local government actions.

At the moment, the Latin American discourse on sustainable urban development focuses more on urban governance and urban management than on the search for a sustainable urban form, of which the compact city model is one option. The dynamics of the divided city have to be managed effectively, and this includes dealing with "serious contradictions and different interest groups" (Zillman 2009: 201). In cities like Mexico it is difficult to definitively say no to urban economic development. This is because, under conditions of almost perpetual economic recession, urban development is seen as a resource to sustain the local economy, despite the potential for negative impacts on the urban environment (Rodrigo-Cervantes 2006). With regards to participation in urban development issues within the Mexican context, practice over the last two decades or so has proved itself capable of addressing a wide range of problems. Communities and civil organisations have jointly worked towards addressing concerns of housing supply and sites and services schemes, "by creating partnerships with governmental agencies and occasionally with private initiatives, hence building up some valuable knowledge and experience" (Juarez-Galeana 2006: 59). However, research indicates the influence specific community groupings play in influencing the outcome of such participation processes (Lezama-Lopez 2006).

In Buenos Aires, new forms of social polarization have been witnessed due to a proliferation of gated communities close to poorer peripheral settlements, supported by local authorities in an attempt to stimulate economic investment. The public sector's relationship with investors in this instance is demonstrated as an exchange of reciprocal favours that are not governed by formal regulations and in which residents have no say, as they are presented as the outcome of the goodwill of developers and local politicians (De Duren 2008). Often the Mayor of a local authority forms the contact point of

negotiation for developers and investors. As in the case of Buenos Aires the Mayor was quoted as “if the municipality cannot, let the private sector give us a hand” (De Duren 2008:63).

In Africa, the experience of new town development has shown that mostly the design and implementation of new towns was done by foreign consultants with little involvement from the local community. The expensive nature of new town development in terms of the bulk infrastructure development costs have also meant that projects were wholly funded by private capital, and therefore primarily served the interests of private capital (Abubakar & Doan 2017). In response to otherwise poor infrastructure development conditions, the Africa Infrastructure Report 2010 (Foster & Briceno-Garmendia 2010) proposes critical policy reforms to address the systemic challenges of persistent informal urbanisation and slow economic growth. One of these critical policy reforms was to assist cities to deal with powerful vested interests that are unwilling to be subjected to land-use and taxation regulations. The report does however not explore the fact that in many African countries there is an overlap between political and economic elites, which essentially influence national elite structures, especially in larger cities. This leads to a political economy that favours the private sector (Pieterse & Hyman 2014).

The world-renowned development of Curitiba, Brazil, is closely associated with Jaime Lerner, a trained planner, who has served three terms as mayor. Implementation of the city’s successful public transportation corridors closely related to social housing, has been assisted by rigorous application of regulatory instruments by all local government departments (Davey 1993). An elected ‘strong mayor’ is both more accessible to community pressure and better able to direct and integrated response by municipal departments and enterprises than the traditional British government-by-committee or the appointed city manager. The ‘strong mayor’ usually carries more weight and can negotiate deals with private sector or community organisations more effectively because of his or her ability to deliver the municipal side of the bargain. However, Davey (1993) argues that a strong mayor may be increasing ineptitude in a weak regulatory system.

In practice, an effective municipal response to urban growth may stem not from strategic planning, but from the political process. In cities like Ankara or Mexico City, the unplanned settlements have turned into orderly serviced neighbourhoods as a result of political pressure on municipal utility departments and enterprises to extend services (Davey 1993).

In Indonesia, Asia, the mandates of local authorities compliment the objectives of political reform as well as the objectives of community driven development, however, in many cases community-level government has been hijacked by predatory local elites (Beard et al 2008). Community driven development is vulnerable to elite capture, because participants enter the process from unequal power positions. They have unequal social standings, varied access to economic resources, different literacy rates and varying levels of familiarity with political protocols and procedures (McCarthy 2002). The research findings demonstrated that participation in community processes was more likely by socio-economic elites i.e. civil servants and professionals, than by unemployed individuals. The results of a community participation process can therefore easily be captured by the desires of the socio-economic elites (Beard et al 2008).

A significant rise of neoliberal planning has been present in cities of the global south since the early 2000s (Robinson & Parnell 2012). According to Carmody and Owusu (2016) neoliberalism has significantly curtailed the role of the state in Africa, and along some dimensions, incapacitated and

weakened the planner's toolkit for dealing with the problems of African cities. In addition, the focus of urban planners across Africa seems to have shifted from making the city a decent place to live for its residents to a place of elite consumption and production, the benefits of which are meant to trickle down. As a result and also a consequence of resource constraints, Africa planners have only tinkered at the margins of the enormous urban problems in the region. "The limited success of the neoliberal inspired narrow economic focus of much of the planning efforts in the region is a testimony to the bankruptcy of this mode of planning" (Carmody & Owusu 2016:65).

4.6 The way forward for urban growth management in the south

From literature on planning, urban growth management and governance in the global south, a number of common themes are identified regarding the use of growth management instruments. These are categorised and discussed below.

4.6.1 Restrictive and outdated instruments used in urban growth management

Forms of urban administration are likely to be adopted from practices in more developed countries. Critical, however, is the social origins of these practices and how relevant they are to the conditions of different developing countries. It is suggested by Batley (1993) that more interventionist approaches to administration were appropriate to a certain period of development in the advanced capitalist countries, but that these conditions have changed and that new administrative approaches are developing in a response. It is argued that the Fordist conditions of mass production and consumption dominant during 1930–1970 in western capitalist societies supported public sector intervention and regulation and a local government concerned with mass, collective provision in housing, social services, public health, education, transportation, physical infrastructure and comprehensive development planning. These British or western practices were then exported as good practice to the rest of the world. However, the transition from Fordism to more flexible production and differentiated markets has questioned the appropriateness of large-scale public provision, blue print planning and regulatory planning and market-led planning is now considered more favourable. Individual nation states are now finding their own route to post-fordism by a process of trial and error. This choice is made in the context of the economic and political legacy of each individual country and in response to the balance of current social interests. Administrative practices have to relate to the particular political and economic context.

Many challenges described in literature relating to urban growth management as part of spatial planning and policy in the developing world relate to outdated and restricted land-use controls and regulatory standards, supported by unreformed tenure arrangements (Chen 2014; Home 2014; Barredo & Demicheli 2003; Fekade 2000; Kombel & Kreibich 2000; Mattingly 1996; Farvacque & Mcauslan 1992). Proven to be adaptive and responsive, the informal sector has been making up for the inefficiencies of public land management. Where public housing schemes, sites and services schemes have all attempted to serve the housing needs with limited success, the informal sector has provided buildable land to in-migrants, and over time these informal settlements do improve in quality, providing satisfactory living conditions to a large proportion of the urban population (Fekade 2000).

Some researchers have argued that using land use controls in developing countries would be unlikely to succeed as land use controls have very little enforcement capacity (Schneider & Ingram 1997). Research in Madras highlighted the negligible impact of development control on the pattern of urban development (Turner 1992). Although it might form part of the total system, development control alone

cannot influence investment decisions to the extent necessary. Responsible government should therefore take positive steps to enable development to take place where and when it best suits declared strategic policies and programmes. Essentially, this is an entrepreneurial skill which does not come easily to conventional city administrations and changes in training, staffing and organisation are required if real progress is to be made (Turner 1992). Calls are made for a paradigm shift toward more enabling strategies as opposed to direct government intervention. There should be a “recognition of the limitations of direct government intervention and emphasis on indirect public-sector support through provision of policy and regulatory framework, land assemblage, infrastructure investments, encouragement of small builders and suppliers of indigenous building materials” (Fekade 2000: 98).

An alternative vision of growth management is emerging in local planning practice. The alternative is rooted in a “critical understanding of present-day reality; it is conscious of the power of the planning enterprise in societal evolution; and it is free from the enticements, self-deceptions, and pitfalls that are attendant on the population-limitation approach” (Niebanck 2007: 404). Urban policies need to shift from containing urban growth to guiding it (Drakakis-Smith 1995). Batley (1993) proposes a new convention of urban management and planning, rejecting technically derived end-state master plans and plans that limit government’s role as direct provider (such as infrastructural provision and land agglomeration) within which the market and self-help are ineffective. Urban planning and management thereby become processes instead of products, concerned with the process of negotiating with and enabling alternative possible providers in the private or public sectors. They work within the framework of broad policy objectives but are required to adjust flexibly or incrementally to what is possible rather than to impose preconceived outcomes. The roles of public officials are more analytic, political and managerial than technical – these officials need to understand the motivation of and relationship between actors, negotiate between them and decide where action is required. In this way public officials could bridge the divide between political objectives and effect change to the benefit of the poor or the majority. This new convention is, however, questioned in a developing world context. It is claimed that a negotiated bottom-up participatory style may be appropriate in a western context of pluralist democracy, but perhaps less so in a context of elite dominance, popular exclusion from policy formation and political vulnerability of public officials.

4.6.2 The role of land markets

One of the significant causes of market failure in urban land markets is the inability of the market to produce public goods. These are goods that can be consumed by everybody in a society, and where nobody can be excluded from consuming them. Because of this, it is difficult to get people to pay for them (Urban Land Mark 2010). Government and market interventions are used to influence land market outcomes in cities across the world. Although well meaning, these interventions “may generate subsidiary effects that are unintended by policymakers” (Brueckner 2009: 22). Achieving socially desirable outcomes in complex land and real estate markets remains a challenging task. The unintended result may be a net social loss, leaving the urban economy worse off (ibid).

According to Mattingly (1993), it is pointless to pursue strategies to counteract market pressures and reactions which consistently overwhelm the available means and commitments to carry them out. At the same time, if plans merely follow what the market dictates, there is no point to planning. The need is for realistic assessment of market intervention possibilities, a strategy commonly absent from the technical considerations of planners in the global south (Steel, Van Noorloos & Klaufus 2017). This may require a different element in the training of urban managers and planners. In place of the investigation

of the methods of planning, they will need to study land market principles and the methods for understanding market operations (Mattingly 1993). It may also require that planners reorientate themselves to more modest ambitions with respect to the arrangement of land uses. It may be time in many developing countries to reduce these controls to manageable levels, concentrating efforts upon major environmental threats to health and safety, and on the critical actions of land development, such as the probable location and timing of infrastructure construction. The controls that remain need to be applied with far greater sensitivity to their likely market effects (King & Napier 2015).

Mattingly (1993: 123) suggests undertaking an analysis of the following aspects before employing a growth management policy:

- Whether the price of land increases faster than the rate of inflation – indicating the land market is constrained;
- Variations in the increase of land values across the urban area;
- The amount of serviced land government has been providing;
- Where residential land conversion is taking place;
- The current pace of land conversion for residential development;
- The current and five-year supply of land for residential development;
- If there is an adequate supply of land for future housing demand;
- If housing prices and affordability has changed over the past five years;
- The segments of population not being served by the formal private sector; and
- Specific policies or actions which are constraining the land market.

To develop effective policies interventions will need to recognise the multiple actors in the urban land sector. This implies a shift in how policymakers conceptualise the management of urban land markets. “There is a need to move from traditional mechanisms – which see the state as the sole authority in charge of regulating land markets – to involving alternative regimes of authority, both recognised (for example, traditional authorities) and not recognised by the law. The critical challenge remains how to develop the appropriate mechanisms to do this in ways that will benefit the majority of urban dwellers” (Urban Land Mark 2010: 31).

4.6.3 Public and political opinion

In 1979 Saunders (1979:324) already noted: “... with political leaders who generally believe what they believe, think what they think and want what they want ... opinions, suggestions and modes of thought pass almost imperceptibly from businessmen to politicians, and from politicians to businessmen.”

It should be no surprise to those undertaking planning that their efforts in pursuit of public benefits are resisted, deflected and thwarted. Any attempt to alter the kind of use, the right of use and the price of land will be resisted strongly by those who will lose out (Mattingly 1993). Urban management and planning are political not only because they produce outcomes from which some gain and others lose, but also because they are political processes for conciliating interests which cannot equally be satisfied (Sager 2011). Techniques may be developed for understanding problems, possible solutions and their costs and benefits, but there is no technically correct judgement about which demands are legitimate or to be favoured (Batley 1993). There is a preoccupation of municipalities, especially those in the developing world, with short-term expediency, and a general reluctance to bear the political costs of longer-term strategic policies (Harrison 2017). To manage a growing city effectively involves enforcing regulations which will only be received positively if their benefits can be delivered in the perception of

the electorates. One can expect a municipal administration to have the self-confidence to manage urban growth effectively only if it has the functional mandate, the discretion, the requisite revenue bases and the skills to achieve visible improvement within its electoral life (Davey 1993).

Local politicians may resort to 'irresponsible' distortion of the rules in order to build their constituencies. The client or client group may offer political support in return for development approval or permits. In this way, non-official interests (land-owners, developers and entrepreneurs) may gain some access to the official decision-making machine through informal networks of influence and social connections with leading officials and politicians (Simone 2000). These informal networks are often formed through social proximity interaction between business people and politicians – likely to be used as instruments of elite dominance (Watson 2009). Necessary adjustments to local context during implementation may be experienced as crises of rule-breaking (squatting for example), corruption or interference by irresponsible politicians who bypass the rules that higher level politicians and officials expect them loyally to defend. This may mean that the formal retention of discretionary power at the centre breaks down in informal practice (Simone 2000).

4.7 Conclusion

Cities in the global south lack the rigid urban form common in the western world and instead are characterised by flexible informality that requires adaptive planning techniques, not grand plans (Abubakar & Doan 2017). Cities in the global south are characterised by unprecedented levels of urbanisation, manifesting as both formal and informal peri-urban growth. The expansion of megacities in the global south has resulted in many cities adopting mechanisms to manage the growth of urban areas. However, in few parts of the global south has governance action through the urban land market been effective. The poor record of growth management cannot only be attributed to the inadequate understanding of market operations. Growth management programmes are thwarted for political reasons because of the power bases which arise from the economic and social value of land. The increasingly important role of the neoliberal agenda in strengthening ill-capacitated developing local governments has demonstrated a vast increase in the political bargaining power the private sector holds over policy decision-making. In many instances, private-sector driven development proposals represents high-income projects favouring middle to higher income interests. By far the most cited reason for failure of growth management instruments in the global south, was failure to enforce such policy by local politicians. A number of cities in the south (such as Sao Paulo, Curitiba and Hong Kong) attribute the success of their growth management instruments to a willing and capacitated political structure. In Curitiba for example, the mayor played a pivotal role in transforming the landscape of the city.

The purpose of this chapter was to demonstrate different approaches and applications of urban growth management and governance in the global south. In Chapter 5, a similar historical narrative approach is followed in discussing the historic evolution of urban growth management in South Africa.

CHAPTER 5: URBAN GROWTH MANAGEMENT IN SOUTH AFRICA⁴

5.1 Introduction

The role of planning in reinforcing the segregationist vision of colonial and apartheid documents is widely analysed. Prior to the 1976 Soweto riots scholarly interest in the effects of separate development related to limited aspects such as architecture, financing and cost-effectiveness of separate neighbourhoods (Jurgens et al 2013; see also Kieser 1964). It was only from the late 1970s onwards that more 'thoughtful' academic engagement regarding the living conditions in townships, standards of social justice and social morality appeared (Parnell 1989; Christopher 1987; Beavon 1982; Rogerson & Beavon 1980; Smith 1974; Harvey 1973). Following the political transformation of South Africa in the 1990s, research enquiry into the effects of the apartheid spatial planning doctrine have covered a wide range of issues such as the delivery of housing (Newton & Schuermans 2013; Lemanski, Landman & Durrington 2008; Marais, Ntema & Venter 2008; Huchzermeyer 2003; McLean 2003), the transition and democratisation of local government (Amtaika 2013; Atkinson 2003; Binns & Nel 2002), the transformation of the spatial landscape of post-apartheid urban forms (Du Plessis 2014; Harrison et al 2008; Borain et al 2006; Pieterse 2004), and the economic implications of the post-apartheid landscape (Turok 2016; Parnell & Crankshaw 2013; Davies 2012). The purpose of this chapter is to provide an institutional historical perspective specifically pertaining to the evolution of urban growth management policy in South Africa. The latter part of the chapter will consider the history and current status of such policy in the metropolitan municipalities of Johannesburg, eThekweni and Cape Town.

5.2 Historical context

Segregated development was firmly rooted in the colonial era. As early as the 19th-century, rural reserves were set aside in which indigenous populations could continue to live under traditional rules and customs but which were still under overall European supervision. Since the establishment of the first Dutch colony in South Africa, attempts have been made to draw a permanent line that would define the boundaries between the immigrant and indigenous population (Christopher 1994). The enforcement of segregationist laws predates the National Party rule in 1948 as illustrated by public policy between 1910 and 1924 that attempted to bring control to the growing instability of town and country at a time when the legitimacy of the political system in South Africa was increasingly being questioned worldwide. The Natives (Urban Areas) Act of 1923 empowered local governments to set aside land for African occupation in defined locations (Davenport 1992). The government was concerned about a major immigration of Africans and Whites into towns. Large-scale urbanisation was initiated with the demand for labour on the mines necessitating mine owners to resort to large-scale recruitment of Africans from rural areas (Christopher 1994). Following the development of the mining industry was the expansion of basic industry and the manufacturing sector. These sectors received a major boost during the Second World War as a result of the effort to achieve independence from overseas suppliers. This spike in the economy resulted in a further impetus to urbanisation. The size of the African population boomed during the 1940s, boosted by expanding employment opportunities in the cities and desperate rural poverty. A severe housing shortage meant that at least 58% of the African population were squatters on unserviced land. In 1948 the National Party came to power in South Africa and proceeded to implement the principles of apartheid within a country already deeply immersed in

⁴ Large parts of this chapter was published as Horn A 2018. The history of urban growth management in South Africa: tracking the origin and current status of urban edge policies in three metropolitan municipalities. *Planning Perspectives*. DOI: 10.1080/02665433.2018.1503089

colonial segregationist rule. On one end of the spectrum, detailed provincial laws in the former four provinces of South Africa regulated the development of land in urban areas reserved for 'white' ownership. This had the effect of preserving property values, promoting a high level of amenity and high levels of services infrastructure. On the other end regulations for 'black' areas were very basic in their protection of amenity and severely limited the ability of black people to own land in urban areas (Berrisford 2011). In varying degrees the legacy of apartheid spatial planning reflected towns and cities exhibiting unequal distribution of infrastructure and amenities. The inequality is exacerbated by the vast distances between the places in which the poor and the well off live (ibid 2011).

The consequences were far reaching, with large-scale forced removals of populations and race becoming the dominant elements in determining the rights of members of the population. The process was fuelled by the determination of the politically and economically white group to retain power over the country in the face of rising demands for political rights by an African majority (Christopher 1994). The solution posed by the government at the time was to curtail the growth of the urban African population and eliminate urban unemployment by means of urban influx control policy. The idea behind the "urban labour preference policy" was to restrict employers' access to workers recruited from rural areas, thereby forcing employers to make use of the smaller labour pool in urban areas. This in turn was supposed to discourage workers from being drawn from rural areas into the city; the policy thereby theoretically aided the curbing of African urbanisation (Posel 1992).

By the 1960s it appeared as if a successful national urban growth model has emerged. Industrial growth in cities was served by three kinds of labour pools: city, township and migrant. The Group Areas pattern had largely been set, and planners at the time were more concerned with upmarket urban expansion and intensification than with the housing of the poor African population (Mabin 1992). However stable in appearance, the massive growth in informal settlements during the 1970s and 1980s demonstrates that the state policy's attempt at urbanisation failed. The condition and location of these settlements also demonstrated the failure of the economy to provide for the basic needs of the non-rural, but not truly urban, population (Mabin 1992). The Riekert Commission introduced the idea of using access to approved housing as a specific control on urbanisation during the 1980s; however, the large-scale continued urbanisation of Africans to urban areas and increasing numbers of peripheral slums witnessed up until the demise of the apartheid regime in the early 1990s demonstrate the inability of state rule to effectively control urbanisation.

By 1994 cities in South Africa were characterised by sprawl, an urban fabric dependent on private transportation, the exclusion of large numbers of poor citizens from urban opportunities, segregation of urban functions regulated by a planning system focused on planning for a minority, and failure to accommodate informality and the urban poor's access to land and housing (Harrison & Todes 2015). Metropolitan municipalities in South Africa are still faced with heavy demands as a result of growing numbers of in-migration and inherent population growth (SACN 2016; Todes et al 2010; Van Huyssteen et al 2010; Harrison et al 2008) Between 2001 and 2011 the population in metropolitan areas grew by more than 25%, compared to 10% in the rest of the country (SACN 2016). Almost half of the population of South Africa (46%) are currently living in Metropolitan areas and in 2011, 42% of the population lived in the metropolitan areas of Gauteng, Cape Town, eThekweni and Nelson Mandela Bay (ibid). Decreases in household sizes from 4.5 people in 2001 to 3.6 people in 2011 (Stats SA 2011) further contributes to demand for additional housing, infrastructure and services in metropolitan areas, resulting in many instances in a dramatic increase in informality and back yarding.

5.3 Post apartheid policy context

The initial 1994 spatial policy response was strongly influenced by a group of planning academics from the University of Cape Town (UCT), most notably David Dewar, Roelof Uytenboogaardt and Vanessa Watson, who framed the problem of South African cities in terms of its inequitable and inefficient spatial structure as a result of both apartheid and urban sprawl, which exacerbated poverty and unemployment and impacted on natural resources and agricultural land on the urban edge (Watson 2002). The alternative spatial approach they proposed and circulated to local government planning via postgraduate planning students entering employment in local municipalities, advocated a compact, integrated city – much in line with the compact city and new urbanist thinking in vogue with the ecological sustainability discourse in the global north at the time – and included concepts such as nodes, transportation corridors and urban edges (Harrison et al 2008). David Dewar in 1992 first mentioned the idea of delimiting a fixed edge between urban and rural or agricultural land to indicate “where development should go and where it should not go” (Watson 2002:51). The entire compact-city approach represented a critique of apartheid’s racial segregatory planning (as well as urbanisation and population control) and instead emphasised spatially just principles such as the integration of urban areas. It therefore provided a politically acceptable alternative to the apartheid urban development and planning practiced at the time (Sim, Sutherland & Scott 2015:45).

The abolishment of the apartheid government engendered the recognition of the spatial imbalances and inefficiencies prevalent in urban areas at the time. The first attempts by the post-apartheid government to address these imbalances were presented by the Reconstruction and Development Programme (RDP) in 1994, the Development Facilitation Act (DFA) (87 of 1995), the Urban Development Framework (UDF) 1997, and the Municipal Systems Act (MSA) (32 of 2000). The RDP was a direct attempt by the new government to address the housing shortages created by apartheid. The RDP delivery model favoured a single house on affordable land at the urban periphery. Promulgated shortly thereafter was the DFA, a national initiative to expedite the establishment of townships in order to facilitate the speedy delivery of lower income housing. Ironically, this is also the first legislation passed stipulating principles of compact urban development that all future development must adhere to i.e. “discourage the phenomenon of urban sprawl in urban areas and contribute to the development of more compact towns and cities” (RSA 1995: 7). In July 1996, three months after closing the RDP office, government released its GEAR programme (Growth, Employment and Redistribution Programme). Although GEAR was presented as being in keeping with the principles of the RDP, it was perceived as a replacement of the RDP and an expression of neoliberal economic and development policies (Bond 2000). GEAR prescribed growth through the usual list of more freedom to the market, less regulation of international trade, more integration into the global economy, and restructuring the state to facilitate those processes (Miraftab 2004). The UDF (1997) followed the dismantling of the RDP in 1996 and attempted to improve housing and infrastructure delivery and emphasise the country’s goal of developing sustainable human settlements as affirmed by the Second United Nations Conference on Human Settlements in 1996. The MSA (2000) provided the legal platform for the establishment of municipal integrated development plans (IDPs) and subsequently spatial development frameworks (SDF) as local municipal vehicles for implementation of national policy directives. Table 4.1 Provides a chronological account of plans and policies attempting to shape the form of urban areas in South Africa since before 1994.

Table 5.1. Chronological representation of legislation and policy informing spatial development patterns and urban growth management since 1910.

	Pre-1994	Post-1994	Present (2010 -)
Planning Agenda	Separate development policy and legislation	Immediate post-apartheid policy and legislation to address social injustice	Post post-apartheid transformation agenda Legislation and policy
National	The Natives (Urban) Areas Act Influx control Group Areas Act Policy to manage large-scale African urbanisation Pass laws Constraints on economic concentration Urban deconcentration efforts Industrial decentralisation	Reconstruction and Development Framework 1994 Development Facilitation Act 87 of 1995 – principles of compact urban development Urban Development Framework 1997 New urbanist inspired legislation and policy	National Development Plan 2012 Spatial Planning and Land Use Management Act 2013 Integrated Urban Development Framework 2016
Local	Structure plans Guide plans	Integrated development plans Land development objectives or spatial development frameworks	Integrated development plans Spatial development frameworks

More emphasis and responsibilities were put in the hands of local government and by way of introducing the IDP, the national government was able to direct local development towards nationally defined objectives. Together with the new focus on local government came the influence of NPM. Even since 1994 the RDP directed attention to business planning, performance indicators and goal-directed budgeting. The emphasis during this time was capacitating local governments to fulfil their constitutional mandates (Harrison et al 2008).

One of the main criticisms against the spatial plans of the post-1994 era is that they did not provide sufficient detail and guidance to inform decision makers. The basic point of departure of this approach to spatial planning was that the creation of an appropriate framework or spatial structure (routes and nodal points) will lead businesses to locate as desired by the plan, following lines of accessibility; however, the abstract use of nodes and corridors provided ambiguous guidance at best as to priority public development areas. This has resulted in increasingly detailed plans being drawn up at lower levels of spatial aggregation, now adopted by most of the metropolitan areas, effectively marking a return to masterplanning (Du Plessis 2014). SDFs are consequently ignored in site-level decision-making and do not link sufficiently to land-use management or infrastructure planning (Todes 2008; Kihato & Berrisford 2006).

More recent national policy and legislation, such as the National Development Plan (2012) and the Spatial Planning and Land Use Management Act (SPLUMA)(2013), are much less explicit about the principles of compact cities and place more emphasis on a general spatial transformation agenda. Following the initial crises responses to addressing the spatial legacies of apartheid, the NDP and SPLUMA offer a more balanced recognition of the factors influencing and contributing to spatial equality and transformation, such as the space economy of cities, the relationship between location and transportation, and the role of the informal sector. The spatial principles of spatial justice, sustainability, efficiency and resilience put forward by SPLUMA are, however, implicitly still supportive of the compact city doctrine (Republic of South Africa 2013; National Planning Commission 2012). These normative ideals of compact urban development and integration put forward by national planning policy and legislation as a means of achieving social justice are to date embraced in metropolitan municipalities' IDPs and SDFs. In support thereof, urban growth management measures such as increasing densification, focusing investment around public transport infrastructure and urban edges, continue to be important elements of all the SDFs of metropolitan municipalities (Sim et al. 2015). The State of the Cities Report (SACN 2016: 54) attributes the failure of SDFs to achieve spatial transformation to date to the following reasons:

- Lack of integrated planning and poor alignment, both vertical (across government spheres) and horizontal (across sectors, i.e. housing, transport, energy, etc.) by all, including government departments, state-owned entities and private developers;
- Slow progress in decentralising key built environment functions to city level, despite the authority for local planning already devolved to all local governments;
- Municipal approval of developments that clash with local government's own spatial transformation agenda;
- Public developments (low income housing on the periphery) reinforce city sprawl, resulting in inefficient and more costly infrastructure and services;
- Failure to invest in the townships means a lack of economic opportunities and growth close to where people live;
- Lack of affordable accommodation close to economic opportunities, and the view that informal dwellings/strategies are the only solutions for the poor;
- Growth in higher-end peripheral developments, i.e. gated housing estates, cluster housing complexes and eco estates, claim to be sustainable, but take up vast tracts of open space and encourage the use of private vehicles;
- Unconnected to the existing city fabric, these 'new cities' entrench spatial and social exclusion, segregation and inequality, based on class or income in place of race, and those excluded are predominantly poor and black (Landman 2010; Lemanski 2004); and
- The heavy economic burden placed on city infrastructure and services far outweighs the financial benefit from property tax.

An analysis of spatial change taking place across municipalities in South Africa by the National Development and Planning Commission indicate minimal understanding at local government level of what urban compaction and other related principles mean (Dewar & Kiepiel 2012). The spatial economy of South African cities undergoing increased decentralisation also contribute to contemporary spatial planning policies (in local government) that have not been able to steer investors towards a compact urban form because of a more laissez-faire approach to economic development and a lack of influence over public infrastructure investment decisions. The result is a sprawling South African city and its

periphery constituting low-density medium to high-income residential development, crowded informal settlements as well as state-delivered low income housing projects (Sinclair-Smith & Turok 2012).

One of the most notable features of the post-apartheid political landscape in South Africa has been the rise of neoliberal thought and policy making. This is most noticeable and most documented at national policy level, but has trickled down to local policy making as well (McDonald & Smith 2004; McDonald 2012). Under apartheid, planning played roles in relation to the market that were similar to those of other countries in the post-war era, but strategic planning was far weaker, and planning activity was coloured by an apartheid logic (Harrison et al 2008). In the immediate post-apartheid years, assumptions that the state and planning could direct economic activity and development continued through policies such as the RDP. The actual extent of the influence of state policy on economic development has however been limited. Following the introduction of programmes such as GEAR and Accelerated and the Shared Growth Initiative for South Africa (ASGISA) however, an increased recognition of the private sector as key role player in facilitating urban transformation has been observed. This position has however meant that less attention has been given to land-use management, and therefore, a relatively *laissez-faire* approach has been adopted to the market and major private-sector driven developments (Harrison et al 2008). The effect of local government support for major private sector driven projects are even more pronounced in the recent upsurge of mega-housing projects in South Africa (Turok 2016). These projects have an inclination towards peripheral development outside the delineated urban edges, and are fuelled by national political imperatives such as the former Minister of Housing, Minister Lindiwe Sisulu's announcement in 2015 of a shift away from small-scale infill housing projects to large scale (15 000 or more units) mixed typology and subsidized initiatives (Harrison 2017). The intention of these mega-projects is similar to other trends in the global south of the establishment of self-contained, new towns undertaken on greenfield sites at the periphery of cities removed from traditional economic centres where relatively affordable land can be purchased and developed (Watson 2014b). The frustration by the private sector with infill projects is understandable and relates to a decline in the number of delivered subsidized housing (Africa Check 2015), bureaucratic issues of land release and construction, the complexity of multiple small projects, as well as the appeal to "start again" on greenfields to avoid problems of cities such as NIMBYism, high land costs and infrastructure backlogs (Harrison 2017). Unfortunately, to date the reality has been that mega projects usually overpromise and underdeliver, despite their political appeal (Cain 2014; Watson 2014b). Expectations are usually inflated and many eventually translate into dormitory towns and exacerbate urban fragmentation.

The adoption of neoliberal frameworks by the post-apartheid government has perpetuated great divides between different populations groups in terms of access to basic urban amenities, waste collection, water, electricity, shelter and transportation, and has generated the casual labour market created under apartheid governance (Miraftab 2004). Opinions are widespread as to what extent the ruling African National Congress (ANC) has adopted a neoliberal policy platform and how this relates to the party's longstanding positions on welfarist urban reforms (such as state assisted housing) (McDonald & Smith 2004). Under apartheid, local governments in South Africa had considerable financial autonomy but little political independence and limited responsibility for service provision in Black Townships. With the end of apartheid and the creation of unified, non-racial local authorities in the mid 1990s, local governments were granted new powers and responsibilities, most notably the provision of basic services to all residents. However, these responsibilities weren't complimented by comparable budgetary commitments, resulting in local authorities having to become increasingly dependent on private sector investment for local income in the form of property rates and taxes (ibid 2004). While

privatisation of municipal services have happened in the early 2000s in Gauteng, this transformation has been much slower in Cape Town. Miraftab (2004) argues that privatization of service delivery under neoliberal reforms are effectively a continuation of elements of apartheid planning by perpetuating the stratification of such services.

It has been suggested that the adoption of neoliberal globalisation in South Africa's case was largely to do with the internal structure of class power, and has been substantially internally generated by the major business groups that dominate the economy, and the state. The historical status of business within the South African economy, combined with their pivotal role in promoting the neoliberal turn and discrediting alternatives is well noted (Davies 2012; Marais 2011), thus placing these mostly white and Afrikaner capital elites at the heart of the government's reform efforts. Indeed, "despite ongoing policy actions by the ANC government to effect genuine social and economic transformation, the nature and organisation of these capital elites remain key in determining the trajectory of the post-apartheid economy" (Davies 2012: 392). The structural inability of government to facilitate a developmental local government in South Africa are faced by four obstacles which are most likely 'insurmountable' as described by Davies (2012: 399): firstly, the lack of capacity in the public sector; secondly, the business culture of materialism, individualism and the obsession with the bottom line that was cultivated during the periods of racial capitalism and globalisation; thirdly, the huge bargaining power that organised businesspeople in the modern sector of the economy wield, as compared to the extreme powerlessness of the rather disorganised population living in poverty; and, finally, the country's extensive integration into the system of neoliberal global capitalism and consequent stranglehold of the global institutions on the government's policy-making process. For the time being, efforts to fundamentally restructure the economy and achieve more than a veneer of broad-based development remain in the balance. The remainder of the chapter is dedicated to exploring the histories of urban growth management in the Metropolitan Municipalities of Johannesburg, eThekweni and Cape Town.

5.4 City of Johannesburg Metropolitan Municipality

The City of Johannesburg Metropolitan Municipality (hereafter referred to as the CoJ) is South Africa's largest city with an estimated population of 4.4 million (Statistics South Africa 2018). The City experienced a population growth rate of 3.5% between 1996 and 2011, the largest population growth rate in the country (SACN 2016). Fewer people are living in more houses, which means the city has to provide infrastructure at a rate faster than the city is growing. Since the 1970s, Johannesburg has experienced decentralization of businesses and offices from the CBD towards suburban nodes in the north of the city, most notably Rosebank, Sandton and Midrand (Figure 5.1) (Todes 2012; Beavon 2004). Decentralization from the CBD has been significant, with considerable employment growth in suburbs and new nodes on the edge (Geyer et al 2012), giving rise to a polycentric city with 52% of its economic output generated in the nodes of Northern Johannesburg, measured against 36% in the Johannesburg Central Business District (CBD) (Todes 2012).

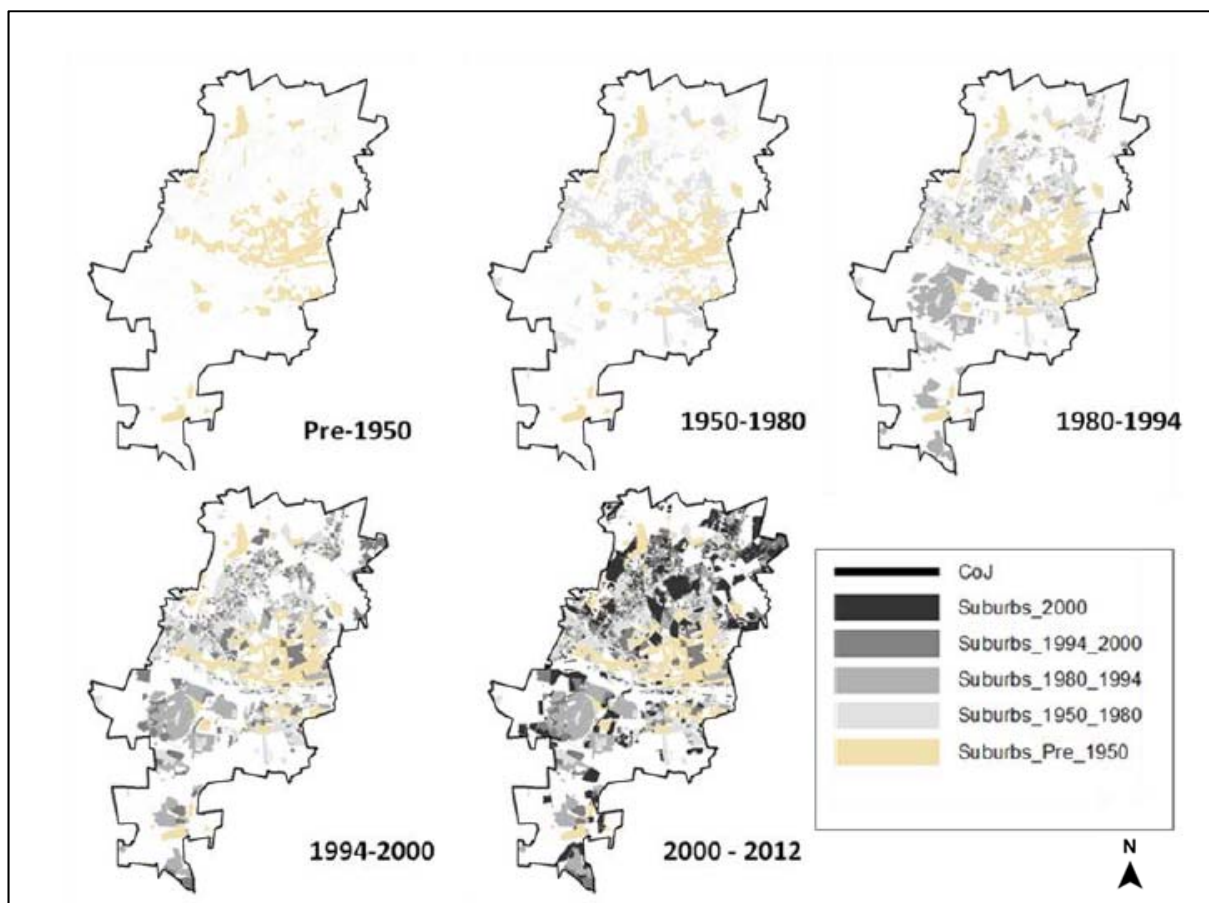


Figure 5.1: Suburban growth in CoJ 1950–2012 (CoJ 2016: 37) – scale not included in original source.

Sandton has emerged as a close second node to the CBD. The spatial economic patterns of the city was heavily influenced by the introduction of the Gauteng Rapid Rail link between the City of Tshwane and the Johannesburg CBD, resulting in the rapid expansion of nodal growth in the north of the city. The dominant pattern of growth in the suburbs to the northern and western extremes of the city have been in the form of low-rise apartment blocks, golf estates, gated townhouse complexes and large, multi-use developments of over 1000 units including mixed-housing typologies (Todes 2012). Major shopping complexes and office blocks have developed along the city's highways and arterials and the city's spatial pattern continues to respond to a car-orientated society. Being part of the broader Gauteng city-region, peripheral growth occurring to the north and west (on the municipal boundaries of City of Tshwane and Mogale City) is now increasingly being considered favourably as a result of its proximity to nodes and economic centres in these other municipalities (Harrison 2017) (indicated in red on Figure 5.2). For the most part, however, housing growth for the urban poor has been in or close to existing townships in the south, most importantly Soweto, established as an area for apartheid relocations in the 1950s, now with a population of over a million (Todes 2012).

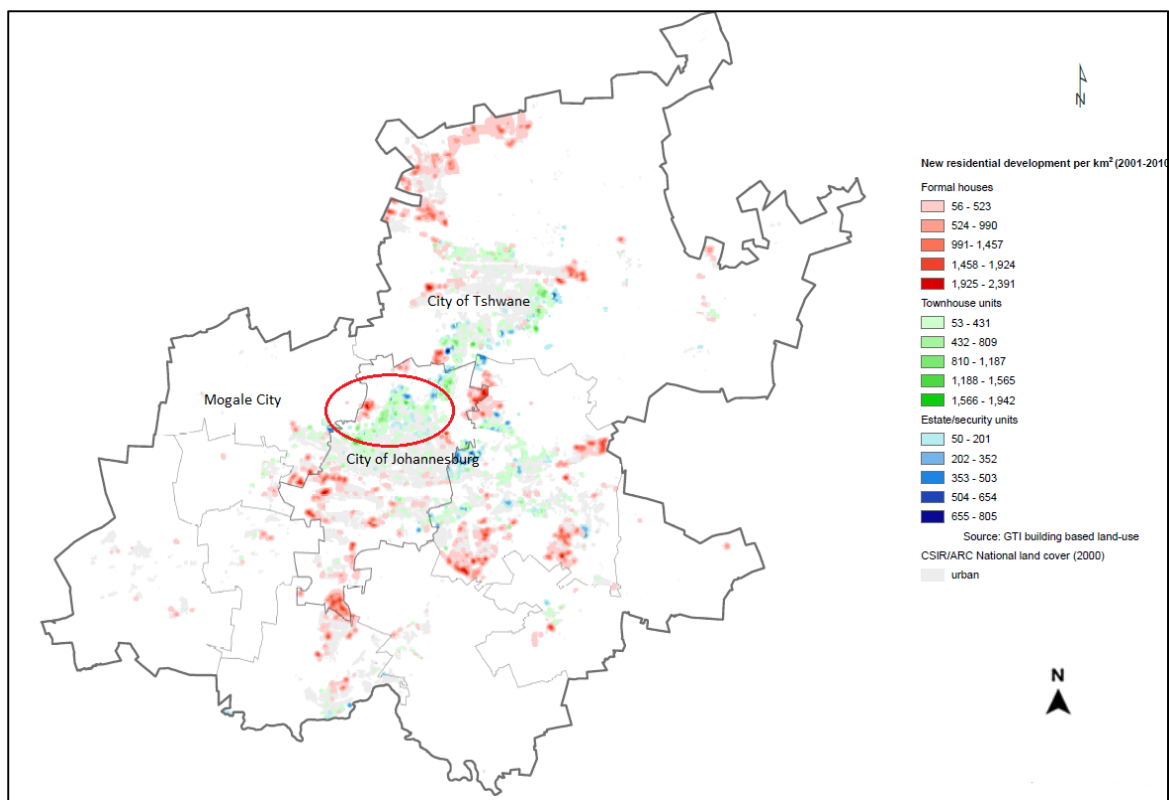


Figure 5.2: CoJ residential growth in the context of the Gauteng City Region (GCRO 2013: npn) – scale not included in original source.

Metropolitan spatial planning since 1990 responded to the racially divided city established under apartheid but also to the reality of persistent urban sprawl. The SDF has been promoting the objectives of sustainable urban environments, urban efficiency and accessibility to city opportunities since 2000 (SACN 2016). The spatial structure of the city aims to achieve these objectives by concentrating and densifying urban development around economic nodes and public transportation corridors such as the Gautrain and Bus Rapid Transit (Rea Vaya) infrastructure. The urban development boundary (UDB) has been in place since 2002 in support of the objective of containing urban sprawl in the city (CoJ 2016). This UDB, delineated as part of a provincial urban edge line (The Gauteng Urban Edge), was established to manage the expansion of the city's footprint, limit sprawl-related infrastructure costs (capital and operational), and protect the city's ecological resources (Horn 2010). The Gauteng Urban Edge delineation process began in 2001 and the expectation was that once the provincial task team for delineating the edge concluded its process, each municipality in the province would be afforded an opportunity to refine its portion of the urban-edge line based on more detailed municipal information (*ibid*).

The report made reference to conservation areas or sensitive natural environments, which are useful features for defining the urban edge as these areas form natural boundaries to the urban areas. It also stated that government subsidized housing, both in terms of location and type e.g. family housing, high density etc., can be instrumental in redirecting growth patterns or promoting concepts like infill development, densification and transit-oriented development (Gauteng Province 2007: 16).

The report suggested using a bulk services contribution program to discourage urban development constituting urban sprawl as a way of assisting the successful implementation of the urban edge. The Gauteng Urban Edge was however rescinded in 2009. A study by Horn (2010) attribute the retraction of the Gauteng urban edge to the following:

- Limited stakeholder participation between the provincial department delineating the urban edge line and the affected municipalities (i.e. the Provincial Department of Economic Development and Planning, the three metropolitan and two district municipalities in Gauteng Province (City of Joburg, City of Tshwane and Ekurhuleni Metropolitan Municipalities), as well as Sedibeng and West Rand District Municipalities). Five years went by before the proposed refinements to the urban edge from municipalities were considered, and in most instances, the provincial authority rejected these refinements. During these five years, municipal spatial plans and policies, as well as urban challenges have changed substantially.
- The pressure of burgeoning development in various parts of Gauteng, mounted by the establishment of the Gauteng City Region.
- The urban edge's stated intention was to serve only for a short term after which it would be replaced by a broader growth management approach.
- An annual review of municipal SDFs created the opportunity for a premature expansion of the urban edge in growth pressure areas.
- Provincial and local government's lack of institutional mechanisms to acquire land within the urban edge has, as a result of ever increasing land values inside the edge, made it impossible for government to purchase land within the urban edge. It was therefore impossible for housing departments to provide lower income housing in locations close to urban economic opportunities. As a result of political pressure for speedy delivery of low income and/or subsidized housing, most housing projects were planned on peripheral land located outside of the urban edge.

The property boom in 2003, which led to massive growth in upmarket development in the north and west, highlighted the fact that planning at this stage was poorly linked to infrastructure planning, and the incremental development approach resulted in severe road congestion and services capacity shortages (Todes 2012). The infrastructure constraints in parts of the city together with the city's expectations of economic growth directed the need for better alignment between planning and services infrastructure. As such, a growth management strategy was introduced in 2008 to align infrastructure investment with desired spatial patterns of growth, and this strategy has subsequently been integrated into the SDF (Harrison & Todes 2015). The CoJ UDB was incorporated as an integral part of this growth management strategy. The provisions of the current UDB policy are reflected in Textbox 1. The current UDB line is indicated in Figure 5.3 where the shaded red areas indicate areas located outside the UDB.

Textbox 1: Provisions of CoJ UDB Policy (CoJ 2016: 134)

i.	Areas falling outside of the existing UDB are viewed as ecological resource areas needing protection and management. Activities in these areas involve food production, low intensity social services and amenities, agricultural related investment, leisure and tourism, and green energy initiatives. The city will therefore limit development and infrastructure investment that is not related to such initiatives.
ii.	<p>Development outside the UDB will be considered in terms of compliance with the following land use criteria:</p> <ul style="list-style-type: none"> • Agriculture: purposes normally associated with or reasonably necessary in connection with agricultural purposes and agri-villages. This includes only dwelling units related to the agricultural use of the property. • Conservation areas and nature reserves: Areas designated for nature conservation, which may include tourism facilities (e.g. accommodations, restaurants) and recreational facilities directly related to the main use. • Tourism and recreational related facilities: Outdoor and tourism related activities including hiking trails, hotels, restaurants, curio markets, conference facilities, wedding venues, game lodges and other similar uses with a rural character not causing a nuisance or having a detrimental effect on the environment. • Social amenities: Social amenities serving communities in close proximity and that cannot be accommodated within the urban development (including schools, clinics and religious facilities) – the scale of these facilities will be considered carefully and may be more restricted than the development controls outlined below, especially in the case of schools and religious facilities.
iii.	<p>As such, proposed activities that conform to the above land use criteria will be further evaluated noting whether:</p> <ul style="list-style-type: none"> • the development is in an area that has been identified to be ecologically sensitive or contains endangered species – proposals would not generally be supported in these instances; • the development would have a detrimental effect on the environment – applicable environmental legislation will prevail; • bulk infrastructure capacities would be exceeded – proposals would not generally be supported in these instances; and • the development will be in keeping with the character and ambience of the surrounds. Proposed developments outside the UDB that do not conform to the above land use criteria will not be supported.
iv.	<p>The city may review the extension of the UDB during its review cycles of the SDF, taking into consideration the following:</p> <ul style="list-style-type: none"> • The rationale and established need for the extension (it would also need to indicate the absence of a property or opportunity within the UDB suitable for infill); • The environmental issues and possible protection measures; • The required services and capacity of the city to provide such services in the short to medium term, and the capital budget effect on other parts of the city, should bulk services be provided; • The impact the extension would have on the city's desired urban form and the objectives of the city's spatial framework; and • The impact of the development on the existing environment.
v.	<p>Township establishment and land development areas beyond the UDB:</p> <ul style="list-style-type: none"> • A proliferation of developments beyond the boundary, facilitated via township establishment applications, is not desirable. However, the formal establishment of a township to facilitate an appropriate and acceptable development (in relation to the criteria outlined in this section) without placing an obligation on the city to extend services and infrastructure may be acceptable in certain instances (e.g. where legal issues prohibit the granting of consent uses, where a township application becomes most appropriate to address development concerns i.e. traffic impact study and geotechnical analysis).

The policies forming part of the SDF translates to an overall vision of a compact city – combining density, diversity, proximity and accessibility; reducing distances, travel times and costs; bringing jobs and social amenities to single use, marginalised residential areas; and reducing energy consumption and infrastructure costs. The priority policies for intervention are as follows (CoJ2016):

- An integrated natural structure
 - Transformation zone
 - A strong, accessible and generative urban core

- Corridors of freedom
- Unlocking Soweto as a true city district
- Developing a Randburg–OR Tambo corridor
- Unlocking the mining belt
- The spatial economy
 - Priority economic zones
 - A hierarchy of nodes as a focus for growth, consolidation and reinvestment
 - Public transport station nodes as a focus of growth (TOD)
- A consolidation zone
 - Deprived areas
 - Established suburban, built-up areas
 - Reinforcing the urban development boundary

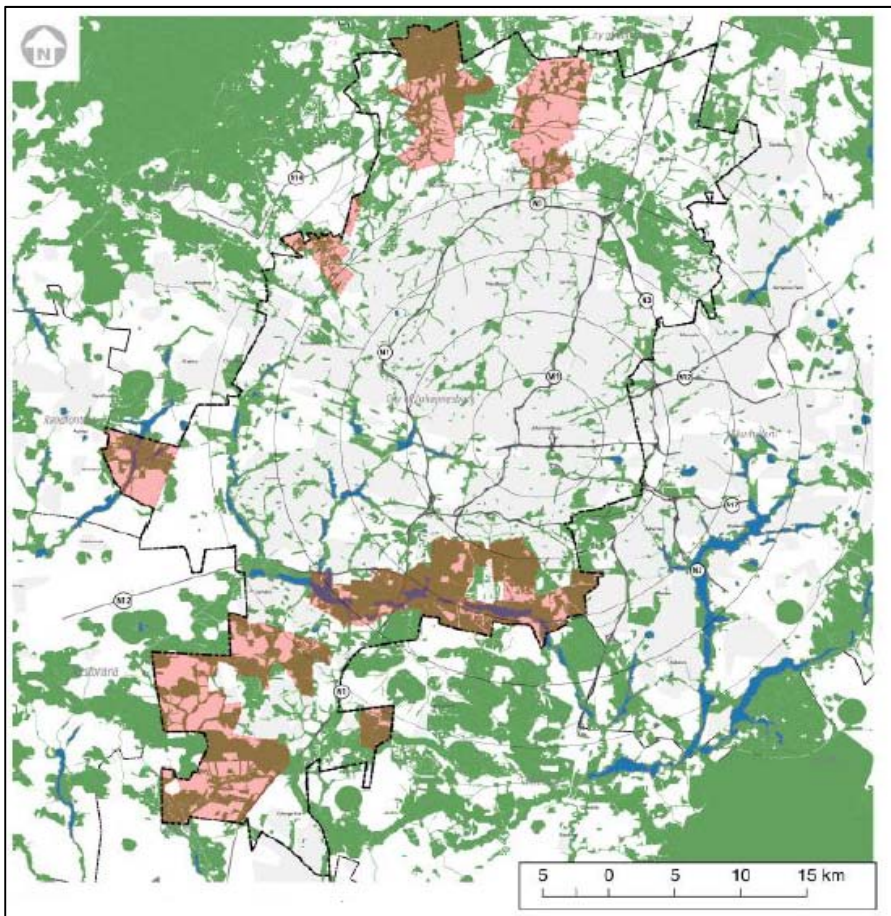


Figure 5.3 Current CoJ UDB line (CoJ 2016: 133)

The UDB was formally amended in 2008 to include large portions of land to the northwest and northeast of the municipal area following a detailed area plan (CoJ 2008). The amendments were argued based on the availability of land and increased pressure for private-led development due to the location of northern nodes relative to its proximity to adjacent municipal nodes, forming part of the greater Gauteng city region. The annual built-up footprint of the CoJ increased by 3.2% between 1994 and 2009 and its annual residential built-up footprint increased by 5.4% between 1994 and 2009 (Du Plessis & Boonzaaier 2015). This figure is comparatively high against the 1%-1.5% annual built-up growth rate experienced in Pretoria, eThekweni and Cape Town (*ibid*). Similarly, the annual residential footprint for CoJ compares a lot higher than 1.7% for Cape Town and eThekweni, and 2.6% in Pretoria. The above

average increase in footprint in CoJ is mainly attributed to massive urban expansion in the north and northwestern parts of the city (*Ibid*). Despite this major public-driven urban edge concession, there is a firm belief that the urban edge and urban growth management strategy in the city have managed to resist market-pressure for the most part (Ahmad 2017).

Political leadership is acclaimed for this success (Harrison 2017) as political councillors are confined to policy matters and thereby separated from individual development applications (Tau in Todes 2012). This arrangement makes policy decisions and negotiations less politically motivated and better aligned with local policy. Politicians did, however, concede to amend the urban edge in Ruimsig/Poortview following substantial pressure for market-driven development (Ahmad 2017). The argument here was however that the UDB allowed the CoJ planners a means of negotiating with private sector, and instead of applying a strict no-go policy in greenfield areas, the CoJ Inclusionary Housing Policy enabled some negotiation towards leveraging development from the private sector that contributes to the objectives of the SDF (Weakley 2017).

The CoJ UDB experience demonstrates mixed results. Whilst managing to maintain the UDB in municipal SDFs since 2002, one large UDB concession was made in the north of the city to accommodate new growth. This concession, although driven proactively by CoJ planning, resulted in a comparatively large expansion of the city's built up and residential annual footprints. In the Ruimsig/Poortview area, an amendment to the UDB took place following substantial market-driven pressure for expansion. Ostensibly the CoJ, instead of remaining steadfast on controlling outward expansion, are increasingly applying the UDB as a bargaining and negotiating instrument to leverage socially responsible development from the private sector.

5.5 eThekweni Metropolitan Municipality

eThekweni Municipality (hereafter referred to as EM), located in the province of KwaZulu-Natal, currently has an estimated population of 3.6 million (EM 2015). Sixty-eight percent of this metropolitan area is considered rural with pockets of dense settlements and tribal lands, and the remainder of the area (32%) is urban land consisting of residential, commercial and industrial land uses (SACN 2016). It has a dispersed urban form creating urban inefficiencies and reinforces old patterns of exclusion. EM inherited bigger demands on its rates base than any other metro as a result of the large services backlog experienced in its extensive rural hinterland. The hilly topography of the metropolitan area contributes to expensive infrastructure provision as it complicates contiguous compact urban development. Consequently, the development trend during the last 15 years has seen the inefficient use of land extending low densities towards the urban periphery (Musvoto, Lincoln & Hansmann 2016; Turok 2016b).

The urban development line (UDL) in eThekweni is a spatial discourse that has been developed to improve the economic, social and environmental sustainability of the municipality in a focused and deliberate way and it has shaped society, space and the environment over the course of the last 12 years (EM 2015). The initial metropolitan urban edge was reflected in the 2002 SDF and the concept defined an area within the urban edge line as the urban core and the urban periphery, and the area outside the line as rural and peri-urban (EM 2010). The EM draft SDF (2017) estimates bulk services costs for sites outside the UDL between R10 000 and R20 000 per site, whilst services to sites inside the UDL are estimated around R5000 per site. The rationale for the UDL therefore rested on cost-effective service delivery, densification of the urban core and the protection of environmental resources. This

was, however, complicated by considerable urban and suburban areas beyond the urban edge, resulting in the proposed urban edge line becoming more of a services edge that reflected the city's lack of support for providing new bulk infrastructure beyond the line (Sim et al. 2015).

Despite being a contentious concept challenged by private developers, metropolitan planners were able to use the urban edge to limit further sprawl that would arise from suburban residential development proposals beyond the edge (Musvuto et al 2016). It was, however, difficult to enforce the urban edge concept on low income housing projects struggling to find land for delivery at scale inside the urban edge. However, up until 2007 the urban edge remained without large scale concessions for development beyond the edge. The approval of the new King Shaka International Airport and the Dube TradePort north of Umhlanga, whose proposals were initially both opposed by planners and services infrastructure departments but eventually approved based on their potential economic benefits to the city, stimulated investor attention and pressure for private sector development to the north of the city beyond the edge (Sim et al. 2015). Subsequently, in the 2010 SDF two new planning concepts were introduced to replace the urban edge: an urban development line (UDL) (a line to permanently protect the rural periphery and ecological resources)(Figure 5.4) and a development phasing line (DPL) (an interim spatial limit to which development will be allowed to establish in accordance with infrastructure availability) (EM 2010). The DPL is, however, not reflected in the SDF. By virtue of its new, generous delineation, the UDL included previously rural land now acknowledged as urban or suburban. The intention was to manage expansion of the metropolitan area by keeping the UDL in place and gradually shifting the DPL towards the periphery as infrastructure becomes available; however, the DPL struggles to garner internal support and is widely contested and compromised by private development initiatives (Sim et al. 2015). The provisions of the current UDL policy are captured in Textbox 2.

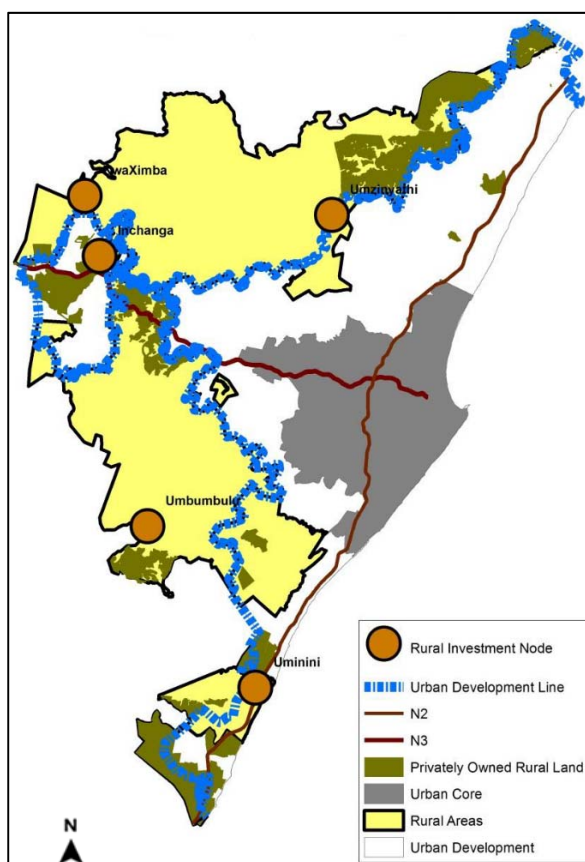


Figure 5.4: eThekweni Metropolitan Municipality urban development line (EM 2015: 271) – scale not included in original source.

Textbox 2: eThekweni Metropolitan Municipality Urban Development Line Policy (EM 2015: 266)

- i. The urban development line (UDL) indicates the outer limit to which urban development will be permitted; however, not all the areas outside the UDL are rural in nature and character. There is a need to outline the urban–rural interface and define the type of development, densities and the service levels and standards that will apply as a way of sustainably managing the transitional peri-urban area. This process may lead to the refinement of the UDL and ultimately the review of the SDF.
- ii. The UDL is a line demarcating the extent to which urban development will be permitted to be established within an urban development corridor or urban node. The line indicates the outer limit of urban development within a corridor or node. The UDL implies that there is a rural hinterland with a different character and different servicing needs, and which supports different lifestyles and densities.
- iii. The UDL is used not only to demarcate the extent to which urban development will be permitted to establish within the metropolitan area in the long term, but more specifically to promote a more accessible, compact, efficient, equitable and sustainable settlement form. Whilst the line indicates the outer limit to which urban development will be restricted, there will be areas within the UDL that will not be permitted to be developed (i.e. environmentally sensitive areas);
- iv. The development services line is a line located within the urban development corridor or node indicating the limit to infrastructure availability and capacity. This line may coincide with the UDL or may fall within the UDL boundary. The metropolitan area may have a number of development services phasing lines related to future servicing capacity and infrastructure indicating where and when future development can be serviced. The service/infrastructure phasing line will assist in the articulation of a phased development approach for the SDF as well as in the identification of realistic programmes and the prioritisation of projects.
- v. The major review of the SDF will introduce spatial instruments that manage urban, peri-urban and rural development based on typology, density, access etc. in an effort to restructure the urban form and prevent outward sprawl and encroachment into agricultural and rural areas. Sector plans will determine how these areas are to be serviced.

The draft SDFs spatial vision is to have “by 2030 a socially equitable, resilient, environmentally sustainable and functionally efficient Municipality that bolsters its status as a gateway to Africa and the world” (EM 2015:6). Some of the priority policies for intervention directly in support of the UDL are as follows:

- Manage urban growth, construct and maintain viable built environment and sustain natural environments and resources;
- Reduce urban sprawl and promote a compact city development;
- Minimise the conversion of agricultural land for new urban development;
- Prioritise infill development in areas that provide opportunities for linking and integrating areas;
- Ensure clustering of various activities (work, live, play) at appropriate locations. Densification and infill should be promoted in well-serviced and strategically-located areas and should contribute to the restructuring and efficiency of the urban environment;
- Densification and infill should help to create thresholds for public transport and contribute towards more effective utilization of various modes of public transport; and
- Higher residential densities should be promoted around nodes and within corridors.

The EM sees continued political support for housing projects outside the UDL on urban and rural land (Musvoto et al. 2016). Ad-hoc decisions on particular projects have undermined the long-term spatial strategy of the eThekweni Metropolitan SDF (Turok 2016b). Politicians’ protection of parochial interests and the 5-year term of office, which result in a short-term political mindset, have been blamed for

municipal planning's inability to maintain an uncompromised DPL (Sim et al. 2015). "Lingering suspicions of political patronage, backroom deals and corporate inertia create a climate of mistrust, such that business people and politicians retreat into their separate worlds and rarely meet to exchange experiences, develop mutual understanding or formulate practical proposals for the future" (Turok 2016b:4). From a technical point of view, the UDL lacks a strong supporting suite of management tools to hold the line, such as a well-defined plan for densification, the commitment to ensure that all municipal housing development must be contained inside the UDL "with political will and resources, agricultural support and resources to maximise the use of rural land outside the UDL, and support from the traditional authorities to halt rather than facilitate rapid urban development in peripheral areas" (Sim et al. 2015: 45).

The experience of the EM UDL is portrayed in literature as much less successful than that in CoJ. It is clear from the EM experience that political meddling and support for specific housing projects played a critical role in undermining the intent of the UDL and DPL. Whilst services provision was intended to guide the logical expansion of the EM footprint, it appears that private sector's ability to pay for services, as well as the fact that the DPL/services boundary was not reflected in the SDF weakened this approach to limiting urban expansion. Instead, private sector investment, fuelled by large public sector investments such as King Shaka Airport and the Dube Tradeport facilitated the expansion of the EM built up footprint. Despite the encroachment of urban land located outside the DPL, the annual residential footprint of eThekweni increased by only 2.6%, compared to 5.4% in CoJ (Du Plessis & Boonzaaier 2015).

5.6 City of Cape Town Metropolitan Municipality

The latest estimations put population figures for City of Cape Town (hereafter referred to as CoCT) at just over 4 million people (Western Cape 2016). Historically, Greater Cape Town has had a more centralized physical form than other cities in South Africa and of the 23 economic nodes in Cape Town, the city is still the dominant economic area by a considerable margin (Sinclair-Smith 2015; Sinclair-Smith & Turok 2012; Visser & Kotze 2008). While all indications point towards an economic geography changing to a more dispersed and decentralised structure, Sinclair-Smith and Turok (2012) claim that the city centre node accounted for almost 24% of business turnover (excluding government services), nearly two-and-a-half times the turnover of the second largest node (Bellville), still making Cape Town a monocentric city. Residential segregation during the apartheid era led to the concentration of separate townships in the south east periphery of the city (Geyer Jr & Mohammed 2016). The dispersed nature of private sector investment towards the northern and western suburbs of the city (where developers respond to residents' preference for secure and gated villages) (Lemanski 2004), the continued concentration of the majority of subsidised housing projects and informal growth in the south east periphery as well as the prevailing monocentric nature of employment opportunities contribute to an inefficient urban environment characterised by lower densities and car dependency (City of Cape Town 2012; Turok & Watson 2001). The historical growth trends in the CoCT since 1862 are indicated in Figure 5.5. The figure clearly illustrates the dominant trend towards rapid peripheral expansion since 2007.

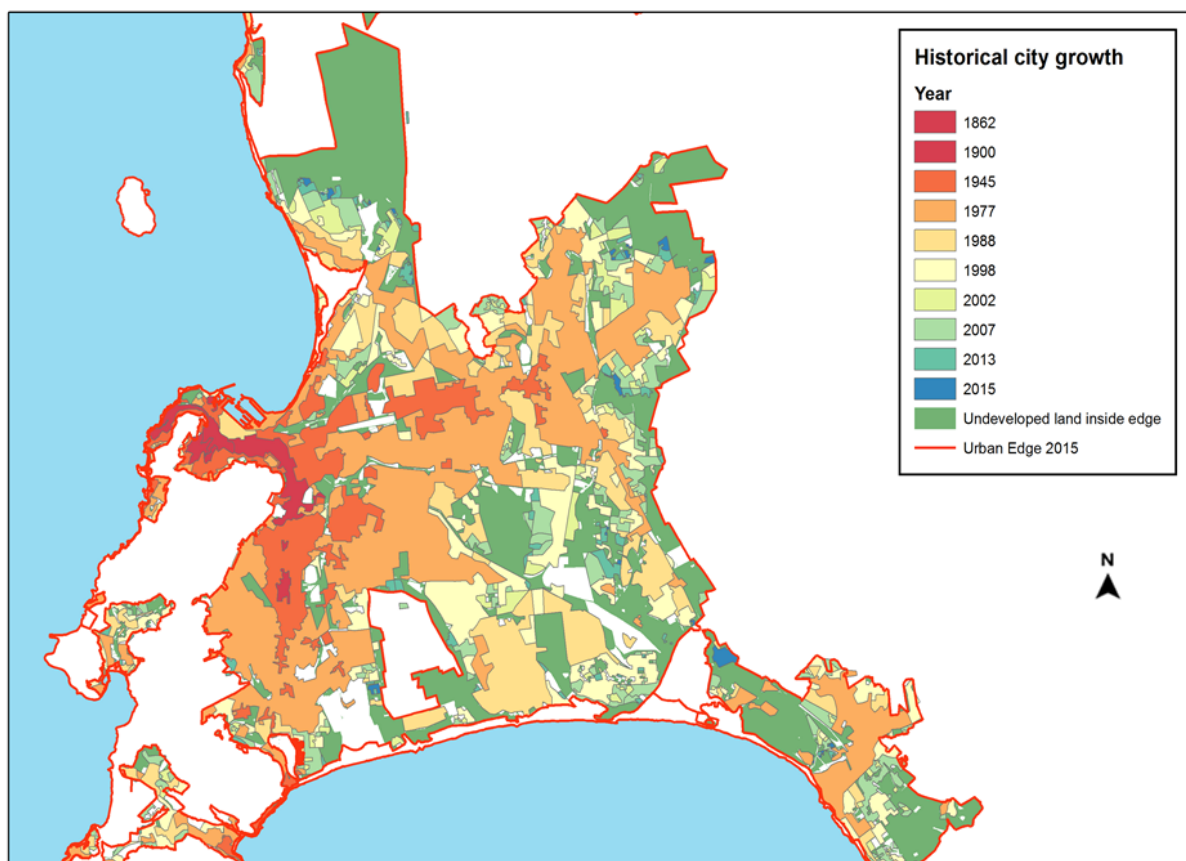


Figure 5.5: Historical growth of CoCT (CoCT 2015: 12) – scale not included in original source.

The proposals put forward by the Cape Town Municipal SDF (MSDF) in 1996 were strongly influenced by the new urbanist ideals pushed by the then Urban Problems Research Unit at the University of Cape Town, who attributed the blame for the physical inefficiency of Cape Town not specifically to apartheid spatial planning but rather blamed the inappropriateness of first world and modernist planning concepts in a local context (Watson 2002). The MSDF proposals related to mixed land uses, higher densities, compacting urban development by applying an urban edge, and public transportation (CoCT 2012).

In 2001 the city's first urban edges were delineated and reflected in four geographically specific reports for Melkbosstrand, Helderberg, the Cape Peninsula and the Northern Metropolitan area. These reports were subsequently reinforced by an official development edges policy forming part of the SDF review that detailed the delineation criteria for the urban and coastal edges as well as the principles that should guide the future management and applications for amendment of these edges (CoCT 2011). The development edges policy consisted of three delineated lines i.e. a green and a red line, as well as a coastal protection line. The green line represented a line to protect a valuable environmental asset and can never be amended, while the red line served as a growth management instrument to avoid the piecemeal growth of the city onto new greenfield areas. The coastal protection line was specifically demarcated to protect the eroding coastline against urban development⁵. In essence, the objective of the development edges policy was to maintain a low density, semi-rural character outside the edge line in support of increasing building densities within the current urban footprint. The red line would be amended at such time when the availability of land inside the delineated urban edge has become

⁵ These three lines were collectively referred to as development edges. The green and red lines represented in the development edges policy are referred to as the "urban edge line" in this research.

insufficient to accommodate new development, and when infrastructure capacity becomes available (CoCT 2011). The urban edge line as reflected in the 2012 CTSDF is indicated in Figure 5.6.

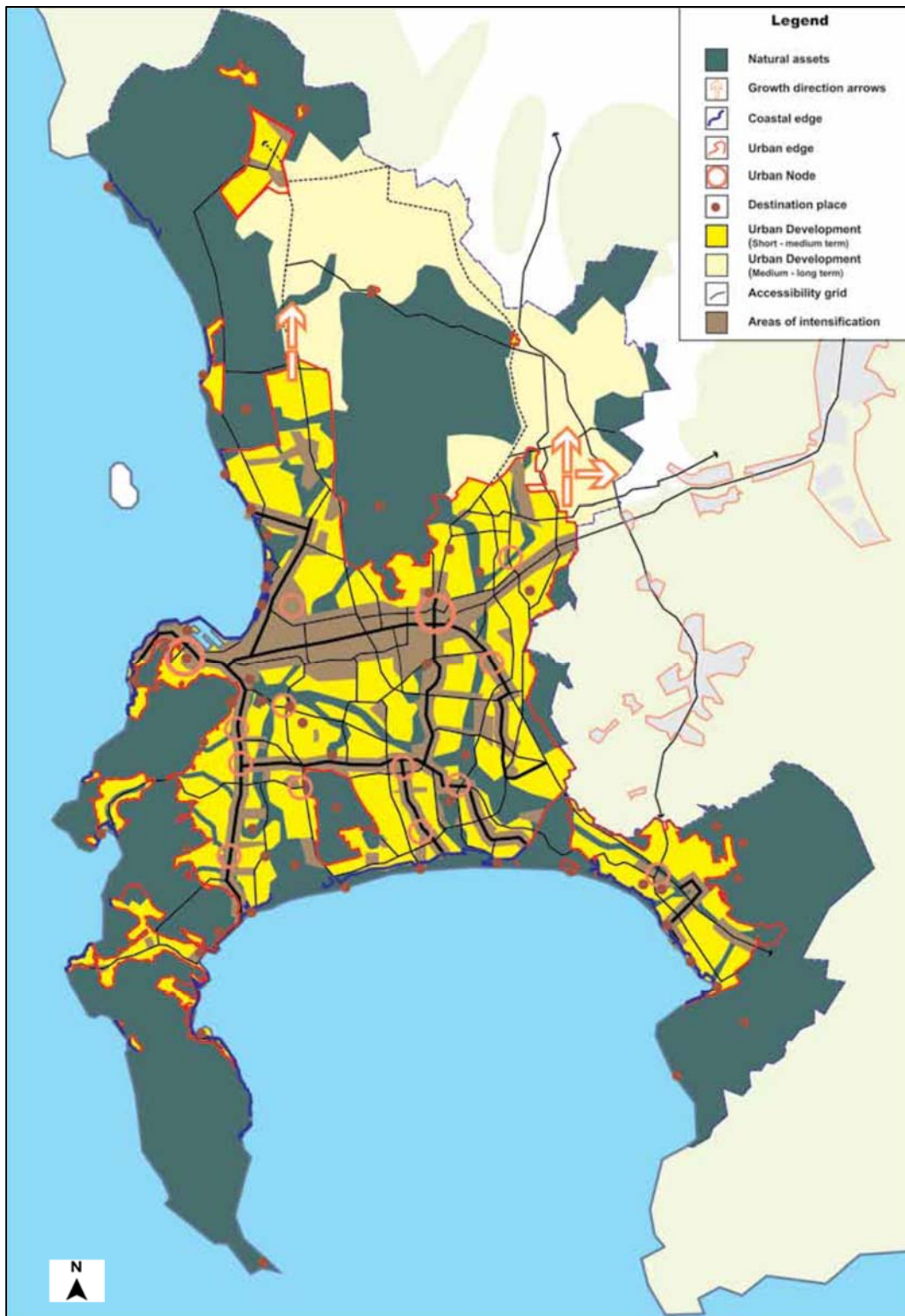


Figure 5.6: The CoCT urban edge line (CoCT 2012: 37) – scale not included in original source.

The provisions of the CoCT Development Edges Policy are reflected in Textbox 3.

Textbox 3: City of Cape Town Development Edges Policy (CoCT 2009: 15)

i.	No urban development should be encouraged beyond the urban edge unless exceptional and unique circumstances exist. The guidelines and criteria outlined below must guide decision-making. It should be noted that the term 'urban development' includes, amongst other things, golf estates, vineyard estates with a residential component, equestrian estates with a residential component, rural living estates, eco-estates, gated communities, regional shopping centres and offices.
ii.	A city-led, proactive review of portions of the urban edge line must take place a minimum of every five years or more frequently if the City deems it necessary.
iii.	Amendments must be guided by the generic delineation criteria for development edges and policies. They must also be guided by the City's urban growth management strategies, development trends, the availability of bulk infrastructure inside and outside the urban edge, new information related to, for example, natural, cultural and heritage resources, and the take-up of land inside the urban edge.
iv.	The urban edge is aimed at managing uncontrolled horizontal spatial expansion so that effective and efficient use is made of undeveloped land and existing infrastructure within the existing urban edge. Decision-making must therefore be consistent with achieving a more compact metropolitan urban form, whilst noting the land and zoning limitations within the current urban footprint, coupled with the need to address the complexities of the less formal areas and urbanisation within the city, as well as the various environmentally sensitive areas within the existing footprint that limit internal expansion.
v.	Amendments should be a logical extension of the urban edge, and based on the City's forward planning imperatives and the City's desired phasing of development.
vi.	The existence of soils with a low agricultural potential is not a sufficient condition to consider amending the urban edge.
vii.	A development application's alignment with the areas identified as potentially suitable for urban development in Cape Town's growth path does not justify support for an urban edge amendment.
viii.	Reactive amendments to the urban edge requiring bulk infrastructure investment not forming part of the City's infrastructure investment plans cannot be approved without absolute clarity and approval of both the cost of installing the infrastructure and the impact of the development on the City's operating costs. It should, however, also be noted that the availability of bulk infrastructure or a private developer's ability to provide infrastructure does not justify support for an urban edge amendment.
ix.	The cumulative impact of all known proposed developments should be considered together, within the context of the City's overall infrastructure plans, to ensure that bulk infrastructure capacity available for developments within the urban edge is not allocated to developments outside the urban edge.
x.	The urban edge line should not be compromised whilst development opportunities for similar property markets still exist within the immediate surrounding urban areas. Given the scale and nature of the demand for government subsidised housing and the potential shortage of land available for this type of housing, the City recognises that, where it is a logical extension to existing urban development, a proactive amendment of the urban edge may be required to accommodate the needs of this market. At least 50% of the nett residential area released in this way should be used to accommodate households that receive a housing subsidy in terms of the National Department of Human Settlement's subsidy scheme, as well as housing serving the gap market. The development proposal must be linked to a written undertaking by the City's Housing Department that housing subsidies for the proposed subsidised units will be made available to the developer within five years. Such proposal must also be linked to the requisite infrastructure. This type of development will need to adhere to the principles guiding the five-year urban edge line review.

The CTSDF of the City (2017–2022) **does not** include the Development Edges Policy or edge lines as growth management instruments. It does, however, reflect the following goals (CoCT 2017:45-48):

- Key Strategy 1: Plan for employment, and improve access to economic opportunities;
- Key Strategy 2: Manage urban growth, and create a balance between urban development and environmental protection; and
- Key Strategy 3: Build an inclusive, integrated, vibrant city.

Within these key strategies, the following supporting policy statements contribute to the ideals of growth management (CoCT 2017:158-170:

- Support property development by identifying the locations potentially suited to urban development;
- Facilitate urban development and direct phasing of urban growth through the deliberate and integrated use of planning, infrastructure provision, and the regulatory and fiscal authority of all spheres of government;
- Promote appropriate land use intensification;
- Contain the development footprint of the city;
- Protect valuable agricultural areas, existing farmland areas and horticultural areas from urban encroachment; and
- Prevent urban development from intruding into the rural environment.

Internal restructuring at the CoCT also meant that the CTSDf, whilst formerly compiled and written by the Metropolitan Spatial Planning department, is now drafted by a new department within the CoCT, the Transport and Development Authority. The physical outcomes of and concessions to the CoCT urban edge form the basis of Chapters 6 and 7. A discussion regarding its experience will therefore follow in the next two chapters.

5.7 Conclusion

The form of South African cities bears the legacy of colonial and apartheid rule. Initial post-apartheid planning responses to address the spatial imbalances left by the former regime included a mix of redistributive government programmes (such as RDP and GEAR) and first-world inspired spatial planning norms and ideals (e.g compact city, nodal densification and public transport orientation). Financial challenges experienced in South African local governments post-2000 however resulted in the increased orientation towards market-friendly policies and planning. This was supplemented with a political climate open to negotiation and bargaining with stakeholders and roleplayers in the local economy. As such, the private sector has been playing a considerable role in shaping the post-2000 urban landscape. This trend is especially visible in the construction of a number of large private-sector initiated housing projects/new satellite cities at the peripheries of South African metropolitan municipalities.

Urban growth management and the implementation of urban edges or urban growth boundaries have been following a similar trajectory. During the immediate post-apartheid years the compact city ideology popularly championed in the global north engendered the compact city as anti-apartheid ideal in South African local municipalities. Urban edges and urban growth boundaries were widely implemented to limit the expansion of municipal footprints and promote the development of more compact and integrated urban settlements. Massive population growth in metropolitan municipalities resulted in immense pressure for new housing development, a driving force that systemically influenced political decision-making and resulted in deviation from the intent of municipal growth management policies in support of private-sector initiated housing projects.

In CoJ, despite a large UDB line concession to the north of the city and a smaller one in Ruimsig, literature the UDB is considered as successful and as receiving the necessary political support according to literature and personal communication. It does however appear that the CoJ is increasingly using the UDB as a tool to negotiate socially responsible development with the private sector. In EM, political influence and interests in decision-making are openly blamed for the encroachment of urban land uses

onto formerly rural land. The situation is further fueled by large public investment projects such as the King Shaka Airport. The CoCT, having had its development edges policy in place since 2001, has since retracted the urban edge as a policy instrument in its latest SDF. The following chapters consider the possible reasons for this decision.

CHAPTER 6: MEASURING SPATIAL OUTCOMES⁶

6.1 Introduction

The purpose of this chapter is to present empirical evidence in support of evaluating the success of the CoCT development edges policy. The chapter describes the use of an urban sprawl index (USI) to measure the extent of sprawl that has taken place in CoCT within a period of fifteen years during which the development edges policy formed part of the CoCT's spatial planning instruments. The proposed USI, however useful in measuring population growth against land consumption, yields a crude measure of sprawl, limited in its ability to critically assess whether the urban development constitutes urban sprawl or not. The second part of the chapter undertakes a further spatial analysis to reveal the extent and location of urban land included in the urban edge line following amendments to the original urban edge line of 2001.

6.2 Measuring urban sprawl

The measurement of urban sprawl has remained an evasive objective and many authors have argued that the quantification and modelling of urban sprawl is near impossible without a universal definition of sprawl (Frenkel & Ashkenazi 2008; Wilson et al. 2003). Ewing (1994), who argued that there is still an absence of a clear definition of sprawl, provides a point of departure for analysis by recognising five characteristics prominent to urban sprawl: 1) a scattered and discontinuous pattern of development; 2) development of residential areas with low densities; 3) commercial strip development; 4) segregation of land uses; and 5) low accessibility and high dependency on private transport. Sutton (2003: 354) charges the term urban sprawl as merely a "politically correct means of complaining about the negative consequences of population growth or the changing scale of the total population of the city they live in". Although the general known impacts of sprawl have been well-defined, uncertainty remains regarding an unequivocal definition thereof and how to measure it. For the purposes of this research, the definition of sprawl will be limited to a residential urban growth pattern leading to peripheral urban expansion.

Spatial metrics can assist in quantifying indices to describe structures and patterns of a landscape (Frenkel & Ashkenazi 2008). Commonly used spatial indices include growth rates such as population growth rate measured against built-up growth rate (Frenkel & Ashkenazi 2008) that calculates an 'absolute' scale i.e. it creates a binary distinction between a sprawled city and a compact city (Bhatta et al. 2010), assuming a pre-determined threshold. Some theorists experimented with more relative measures that in contrast quantify several attributes of urban growth (Torrens 2008; Galster et al. 2001) and can be compared among cities; however, the complexity of the selection of indicators and data and/or resource availability renders such an approach expensive and time consuming.

Simple metrics that yield a Boolean result of sprawl, such as metrics reflecting the relationship between population change and land conversion to urban uses, are preferred urban sprawl research methods. A hypothetical Boolean approach is to assume that if the built-up growth rate exceeds the population growth rate, there is a presence of sprawl. The data required to develop a measure of urban sprawl are

⁶ Large parts of this chapter was published as Horn A & Van Eeden A 2018. Measuring sprawl in the Western Cape Province, South Africa: An urban sprawl index for comparative purposes. *Regional Science Policy and Practice* 10: 15-23

1) the aerial extent of the urban area; 2) the corresponding population of the urban area; and 3) a formula describing the relationship between the population and the aerial extent of the urban area (Sutton 2003). When applying this method, most urban sprawl indices make use of remote sensing and satellite data; however, built-up areas that are occupied by residential housing units and their related growths are not easily identifiable from remote sensing data (Sutton 2003)

For the purposes of arriving at an urban sprawl index (USI) for the CoCT, the unit of investigation was firstly defined as only the formal residential built-up area inside the municipal border of CoCT, since the aim of urban edges are generally to curb the expansion of formal development that results in additional land consumption. For the purpose of this research, urban sprawl is considered to be present when the rate of formal residential expansion exceeds the urban population growth rate. The 'residential land use' category (i.e. formal residential land use) and the 'township' land use category (i.e. established township areas as per land use data obtained from Mapable (Ltd)), linked to cadastral boundaries and retrieved from the South African Department of Rural Development and Land Reform, were used in calculating the urban areas for the two reference years respectively as these areas are the ones where increased population were assumed to be accommodated.

The availability of land use and population data over a comparative time period was the biggest constraint to the research. As the aim was to provide a reasonable evaluation of urban sprawl, the longest possible time period (given the availability of data) was considered, as long as it coincided with the presence of the development edges policy in the CoCT's spatial planning. To compute the USI (Equation 1, a and b), the study therefore made use of South African census data for reference years 1996 and 2011 to ascertain the extent of the population growth. The reference years obtained for spatial data that compared closest to the census years were that of 1990 and 2014. Given these parameters, the USI was calculated as follows:

$$USI_{T_1T_2} = CAGR_{T_1T_2}^{UA} - CAGR_{T_1T_2}^{UP} \quad [1]$$

Where: $USI_{T_1T_2}$ is the USI for a city measured over time period 1 T_1 (1996) and time period 2 T_2 (2009);

$CAGR_{T_1T_2}^{UA}$ is the compound annual growth rate for urban formal residential and township expansion;
and

$CAGR_{T_1T_2}^{UP}$ is the compound annual growth rate for urban population.

Equation 1 was obtained by calculating the compound annual growth rate as follows:

$$CAGR_{T_1T_2}^{UA} = [(UA_{T_2} \div UA_{T_1})^{1/(T_2-T_1)} - 1] \times 100 \quad [2]$$

and

$$CAGR_{T_1T_2}^{UP} = [(UP_{T_2} \div UP_{T_1})^{1/T_2-T_1} - 1] \times 100 \quad [3]$$

Where: UA_{T_2} and UA_{T_1} refer to the urban residential area for a city in T_1 and T_2 ; and

UP_{T_2} and UP_{T_1} are the urban population for each city in T_1 and T_2 .

According to the definition in this research, a growth rate that is higher than the population growth rate in residential land development would be indicative of urban sprawl, i.e. $USI \geq 0$.

6.3 Results

Table 6.1a reveals the formal residential and established township area land cover change that took place during 1990 and 2014. In Table 6.1b it can be seen that the formal residential area of the CoCT increased by 8 % during the time period 1990–2014, whilst the population of the city increased by 46% during a related fifteen-year period (1996–2011), thereby suggesting a population growth exceeding residential growth rate factor of 5.57, meaning the population grew 5.57 times more than the formal residential footprint of the city. If viewed from the perspective of formal residential development only, the urban edge as a spatial policy instrument to limit urban sprawl seems to have had a noticeable impact. It is acknowledged that a large component of residential growth in South African happens informally, and therefore the analysis was performed again, this time land cover changes were included as they pertain to the growth of informal settlements⁷.

Table 6.1a Formal residential and established township land cover change 1990–2014

Compound annual residential growth rate	1990	2014
Formal residential	25424	27459
Established township areas	9136	9949
Total residential	34560	37408

Table 6.1b USI including formal residential and township land cover

	Compound residential rate	annual growth	Compound population growth rate	USI
1990	34560ha	1996	2563095	
2014	37408ha	2011	3740026	
	0.33		2.55	-2.22

Table 6.2a indicates the land cover change attributed to the growth of informal settlements. The analysis in Table 6.2b reveals that even when including informal residential areas as a land use category in calculating urban expansion, the USI continues to suggest limited urban sprawl.

Table 6.2a Informal land cover change 1990–2014

Compound annual residential growth rate	1990 (ha)	2014 (ha)
Formal residential	25424	27459
Established township areas	9136	9949
Informal areas	611	2074
Total residential	35171	39482

⁷ Data obtained from Mapable (Itd)

Table 6.2b USI including informal area land cover 1990–2014

	Compound residential rate (ha)	annual growth	Compound annual population growth rate	USI
1990	35171	1996	2563095	
2014	39482	2011	3740026	
	0.48		2.55	-2.07

However, while the analysis considered the expansion of residential land uses (formal and informal) against population growth, other land use categories may also contribute to a sprawled urban landscape. Therefore, the analysis was repeated a third time, including commercial and industrial land use categories⁸. Table 6.3a indicates the land cover changes associated with formal residential, established township, informal settlements, commercial and industrial areas between 1990 and 2014.

Table 6.3a: Total land cover change 1990–2014

Compound annual land cover growth rate	1990 (ha)	2014 (ha)
Formal residential	25424	27459
Established township areas	9136	9949
Informal areas	611	2074
Commercial areas	4922	6575
Industrial areas	5291	4906
Total land cover	45384	50963

Table 6.3b shows that even with the addition of the commercial and industrial land use categories to the USI analysis, limited sprawl is suggested. Even though the analysis does not account for the style or design of development that took place at ground level (which may indeed resemble urban sprawl), the analysis at the very least indicates a disproportionate population growth measured against consumption of land for urban uses. This is confirmed by recent research by the CoCT which indicate that since 2005 the rate of land consumption has dropped precipitously from over 750 hectares per year to 250 hectares per year (see Figure 6.1).

Table 6.3b: USI including total land cover change 1990–2014

	Compound land cover rate (ha)	annual growth	Compound annual population growth rate	USI
1990	45384	1996	2563095	
2014	50963	2011	3740026	
	0.48		2.55	-2.07

⁸ Data obtained from Mapable (ltd)

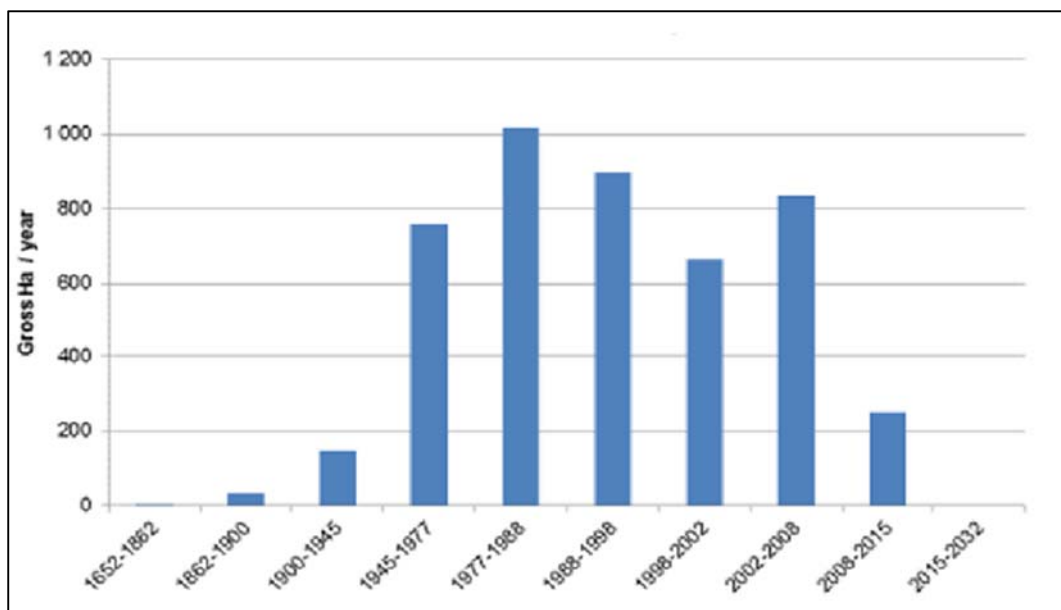


Figure 6.1 Historical land consumption in CoCT (2015: 9)

From the analysis in Tables 6.1a and 6.1b it is evident that the fast population growth rate resulted in formal housing delivery i.e. the private sector and state-assisted housing schemes unable to keep abreast. In this regard, another likely explanation for the reduction of the growth rate of the formal residential area is that the population and built-up density increased over time (Sharifi et al. 2014). One of the questions Du Plessis and Boonzaaier. (2015) explore in their research is to establish whether there is an indication of compaction or densification of the urban structure in South Africa since 1994. The study found that the City of Cape Town experienced an increase in density of up to 13 persons per ha and a population density per residential footprint change between 1996 and 2011 of 16.8 persons per ha, at least partly supporting these results.

The analyses in Tables 6.2a and 6.2b suggests that the 'spill-over' of population growth into informal areas, as a result of a formal residential backlog, would reveal a high density living space as well. Current estimates of informal development in Cape Town points to a density of up to 160du/ha (CoCT Pers Com 2016). The last analysis in Tables 6.3a and 6.3b demonstrates the marginal contribution of non-residential (market-driven) urban land use categories to land consumption. What the research suggests is that urban sprawl in Cape Town is limited if expressed in terms of population growth rate against land consumption.

The CoCT Metropolitan Spatial Planning Department undertook an analysis of all significant vacant and partially developed sites inside the urban edge in 2010 in order to assess their suitability for potential urban development. During this analysis, 37 000 sites were evaluated and each site was considered for its development potential, the percentage of the site available for development, suitability for different land uses, appropriate residential density and the likely timeframe for its development. The Evaluation of Developable Land within the Urban Edge study (2011) revealed between 7000 and 8000 ha of land available for residential development inside the urban edge, and between 9000 and 11 000 ha available for general urban development. Using past urban growth rates to model future growth scenarios, the report found sufficient land available inside the urban edge to meet the medium-term land requirements for projected growth (Figure 6.2).

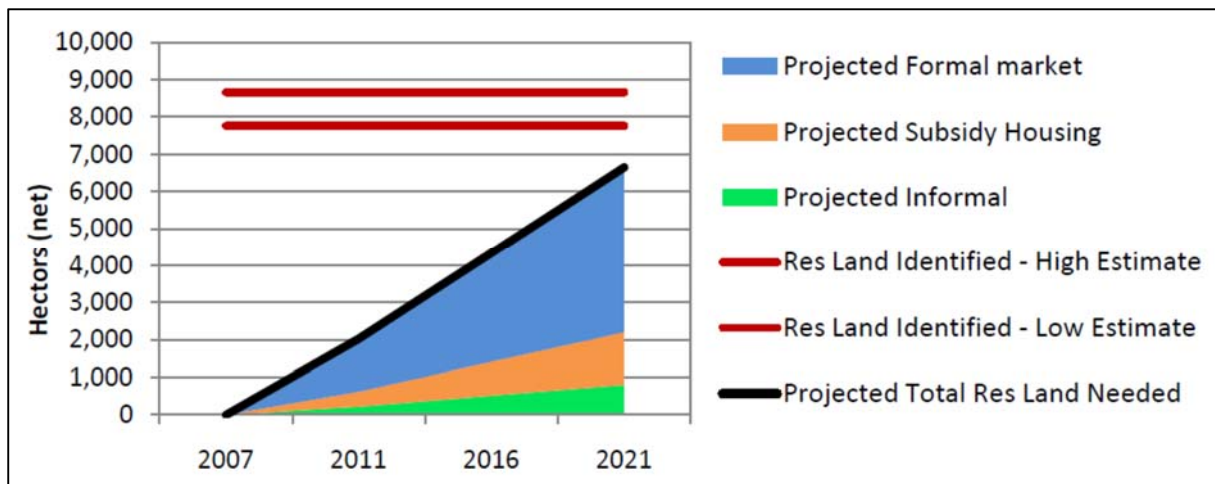


Figure 6.2: Projected residential land demand compared to residential land identified within the urban edge (CoCT 2011:9)

The following figures illustrate the expansion of residential, commercial and industrial land uses in Cape Town since 1990. Figure 6.3 illustrates significant residential growth towards peripheral areas of Cape Town (i.e. north-western, north-eastern and far eastern regions of the metropolitan area) as well as growth in the south-east region of the metro. Despite the growth in residential areas at the urban periphery, the map reveals large portions of vacant land (potentially available for development) located inside the urban edge. The growth of commercial land uses since 1990s reflect a more balanced picture of city-wide growth (Figure 6.4). Despite the growth witnessed in the north-western and north-eastern peripheral areas of the metro, evidence of commercial growth is equally present in the central regions of Cape Town. Figure 6.5 reveals major growth since 1990 around large industrial nodes i.e. Blackheath/Kuilsriver, Airport Industria and Montagu/Killarney Gardens in the north-west.

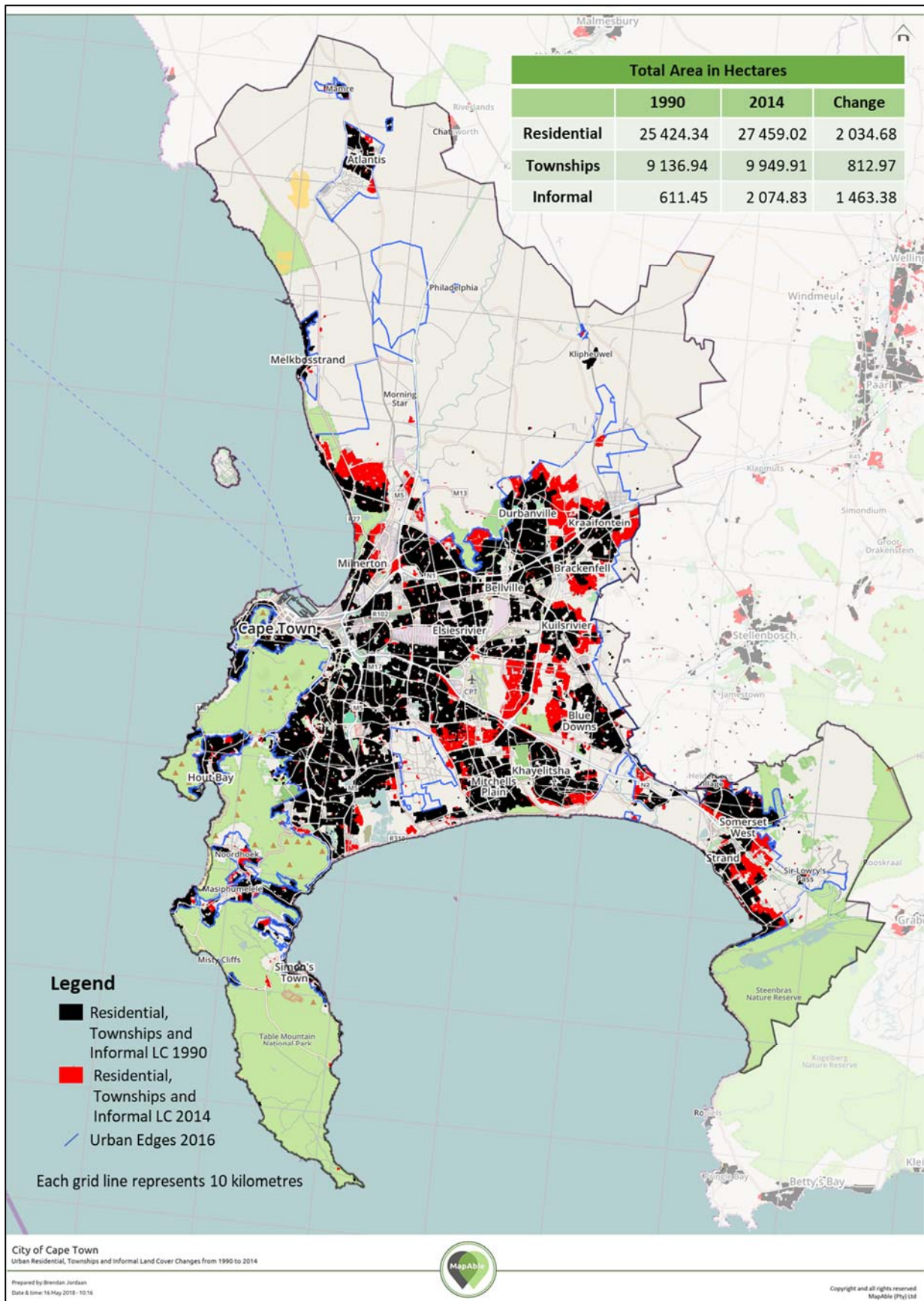


Figure 6.3 Residential expansion in Cape Town 1990–2014⁹

⁹ Data and software from MapAble®

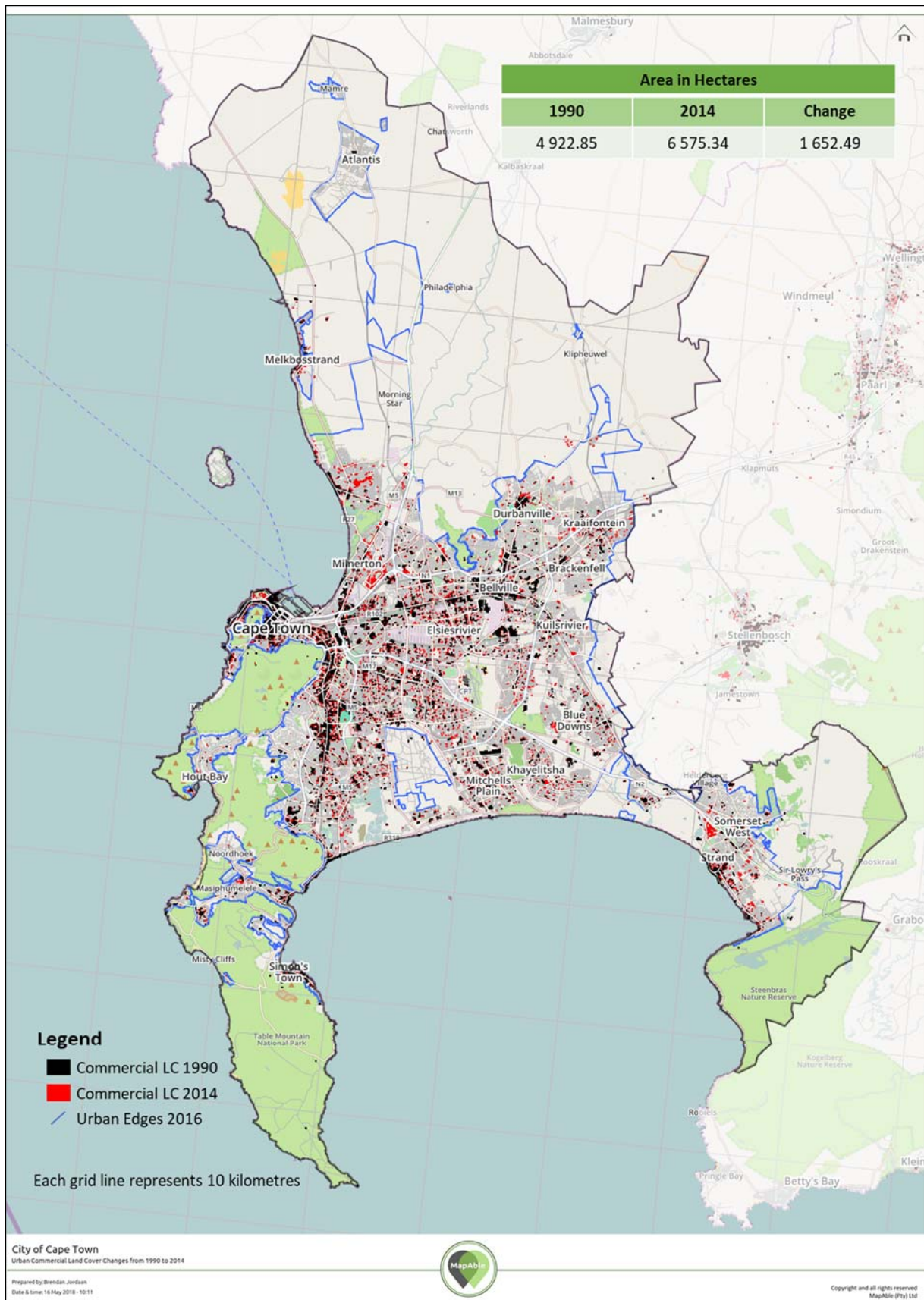


Figure 6.4 Commercial expansion in Cape Town 1990–2014¹⁰

¹⁰ Data and software from MapAble®

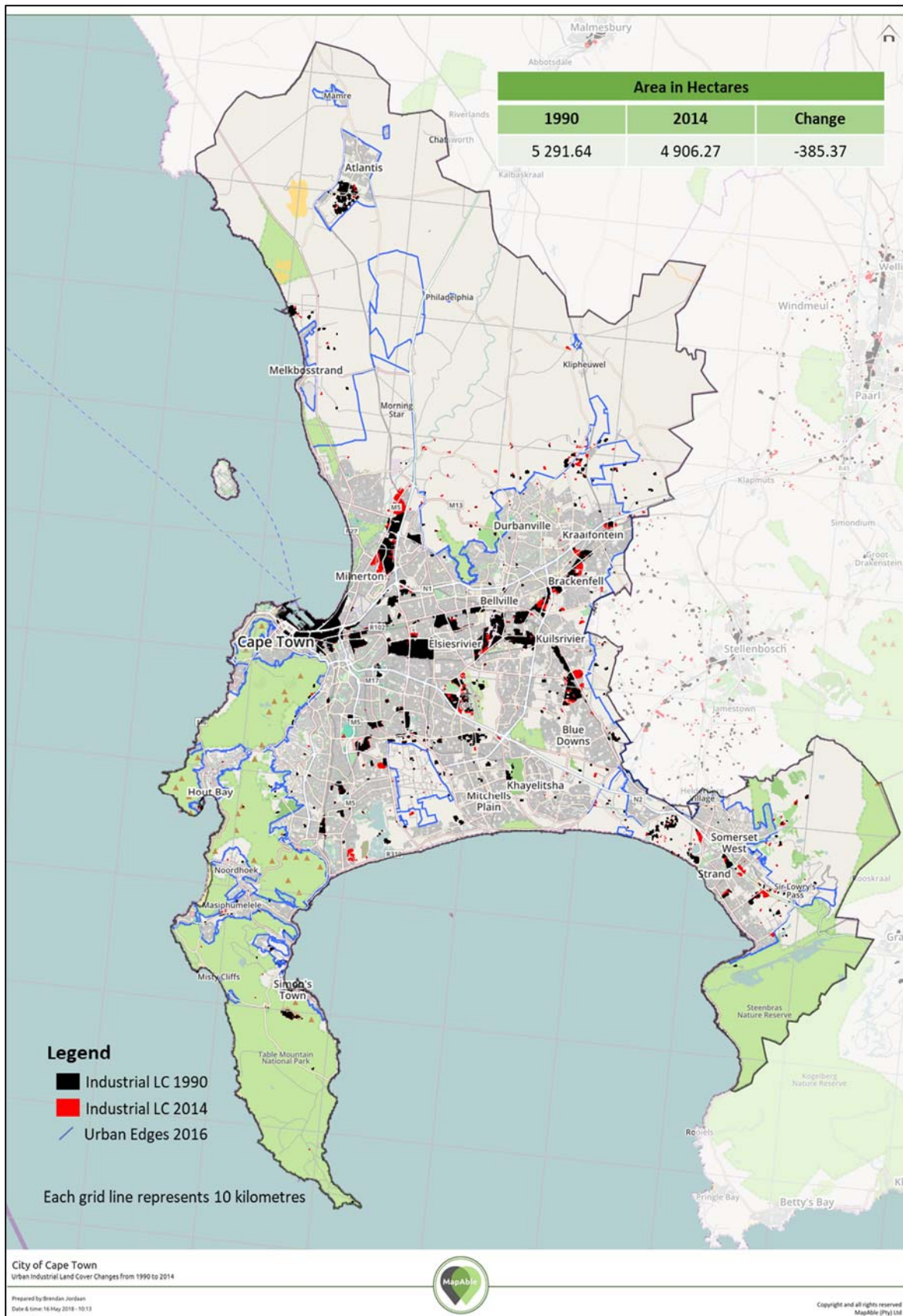


Figure 6.5 Industrial expansion in Cape Town 1990–2014¹¹

¹¹ Data and software from MapAble®

Despite the analysis revealing sufficient land available for residential development from the formal private and public housing sector, as well as from the informal housing sector, substantial urban edge line amendments were made to the original urban edge line, significantly around the Philippi Horticultural Area, the north-eastern periphery (Fisantekraal) and towards the north-western periphery of the city in Milneron (Wescape development). These amendments to the original urban edge line of 2001 are indicated on Figures 6.6 to 6.8 at the end of the chapter. Figure 6.6 illustrates the extent of the urban edge line amendment in Schaapkraal, Philippi, as resulting in an additional 1165.95ha of farmland now included in the urban area. Similarly, Figure 6.7 illustrates an additional 3231.8ha of land included in the urban footprint as a result of the urban edge line amendment in Wescape, north-western Cape Town. Figure 6.8 illustrates significant amendments to the urban edge line towards the north eastern and north western periphery of the city, as well as the amendment in Schaapkraal, Philippi, and other smaller amendments towards the southern peninsula and Somerset West. Amendments to the urban edge line in these areas result in farmland now included as part of the urban area. These farm portions can then be developed into urban uses such as residential or commercial land uses.

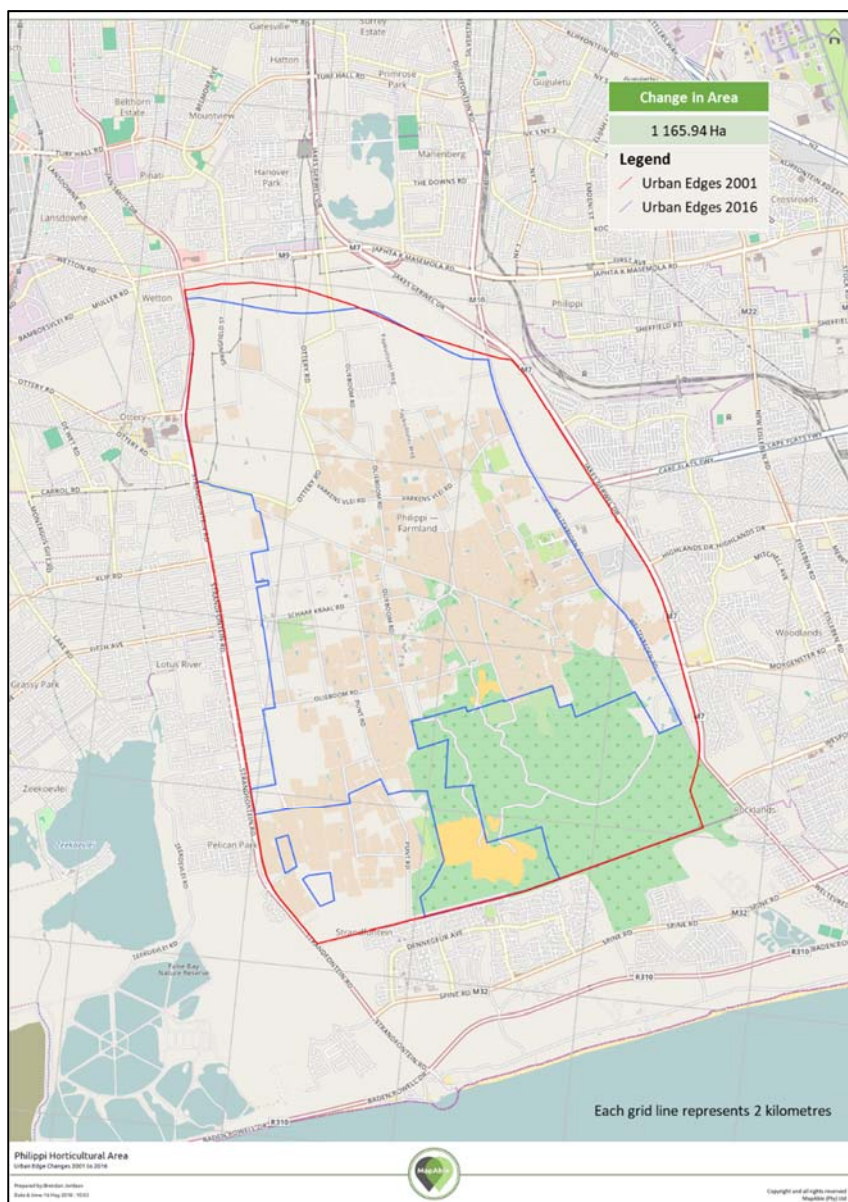


Figure 6.6 Urban edge changes in Philippi Horticultural Area 2001–2016¹²

¹² Data and software from MapAble®

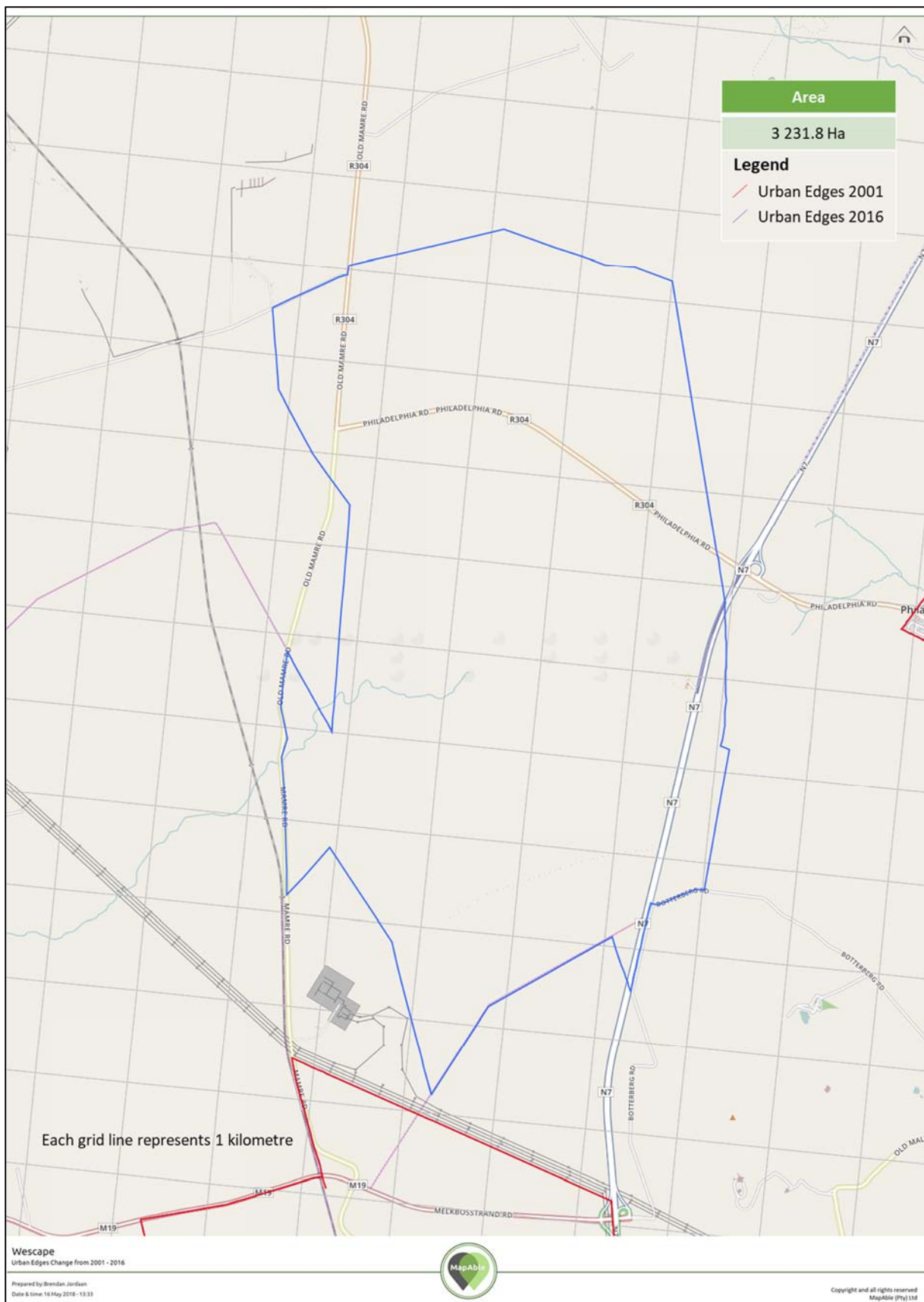


Figure 6.7 Urban edge changes in north-western Cape Town (Wescape) 2001–2016¹³

¹³ Data and software from MapAble®

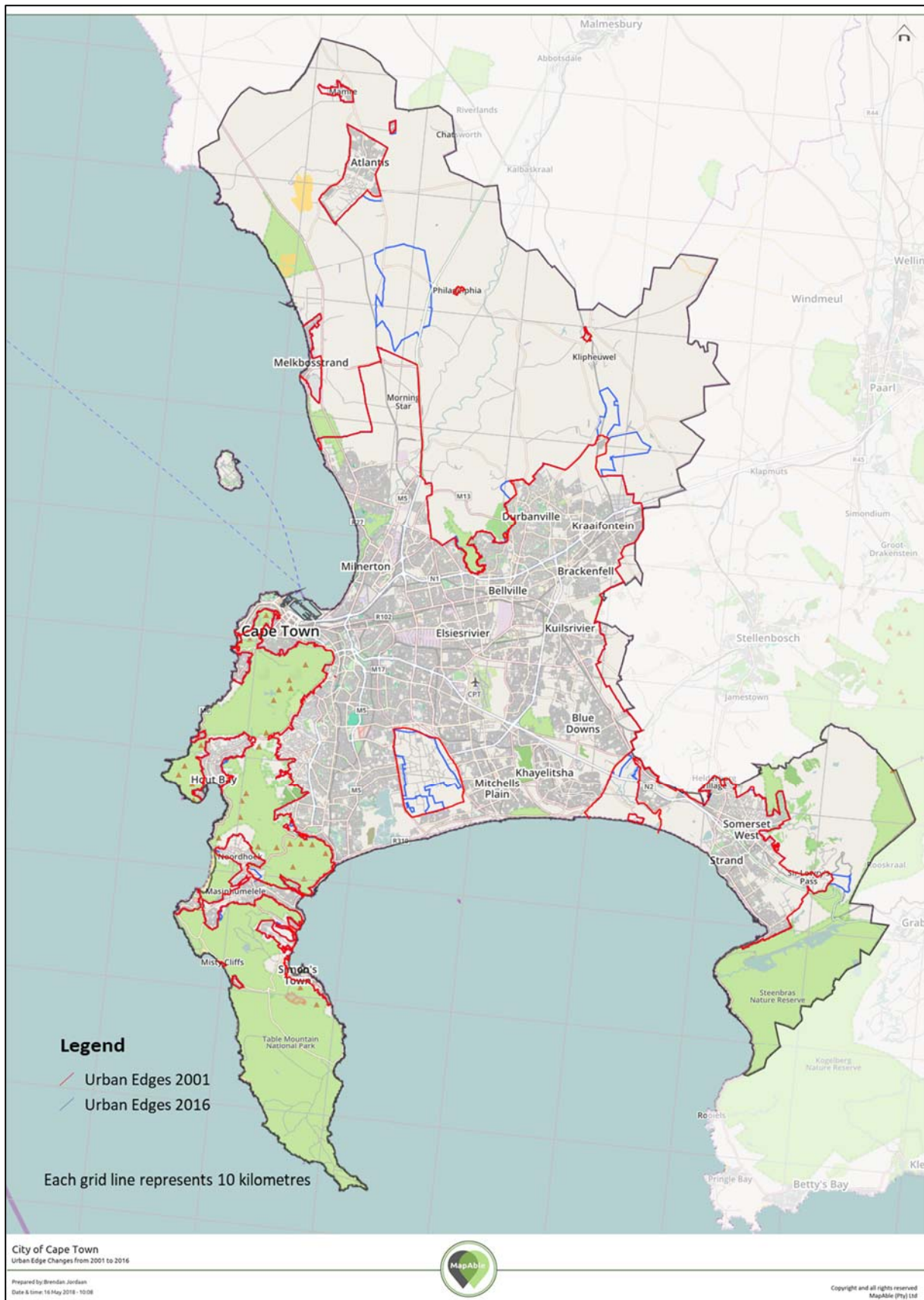


Figure 6.8 Urban edge changes Cape Town 2001–2016¹⁴

¹⁴ Data and software from MapAble®

6.4 Limitations of the USI

The research focused on residential expansion (formal, township and informal) and market driven non-residential urban land uses (commercial and industrial) as the only indicators of sprawl. The author, however, recognises that there are other, non-residential land uses such as institutional facilities that can also act as contributors to urban sprawl. The author also recognises that this is not a compounded USI but that it focuses only on physical expansion of the formal residential footprint of urban areas compared to crude population growth. It is therefore important to take cognisance of many other factors such as leapfrogging, densification and infill when determining the extent of urban sprawl in an urban area. These limitations should form the starting point of further research.

6.5 Conclusion

Comparing the conversion of land to urban use measured against population growth by applying a USI is commonly used to assist in measuring urban sprawl. Although such analysis do not reveal the shape and design of urban development, it provides an indication of the proportional relationship between land use consumption and population growth. This chapter revealed disproportionate population growth compared to (relatively) minimal land cover change in Cape Town. Whilst the population expanded by 46% between 1996 and 2011, the corresponding land use expansion rate for the period 1990–2014 was only 8%. These findings suggest a noticeable reduction in land consumption and could be indicative of densification inside the urban edge. If the measurement of sprawl is used as an instrument to measure the success of an urban edge, the results of this analysis suggest that the urban edge in Cape Town was successful in containing urban expansion. The chapter further revealed the amount of vacant land available for urban development inside the urban edge (as per CoCT 2011). Despite the findings of this study, a number of large-scale amendments to include additional land inside the urban edge were undertaken between 2012 and 2016.

The following chapter continues the evaluation research by analysing the individual decision-making processes during amendment of the urban edge line in Philippi (Schaapkraal) and Milnerton (Wescape). The evaluation also extends to the decision-making process as it finally terminated the urban edge line and development edges policy in 2017.

CHAPTER 7: PROCESS EVALUATION¹⁵

“Words have a history, as evidenced by their shifting meanings. Writing that history is no easy task, as nothing is more fleeting than ways of saying things, which leave few traces” (Topalov in Home 2018: 1)

7.1 Introduction

The Cape Town Spatial Development Framework 2017 does not include the development edges policy or urban edge line as growth management instruments. Between 2012 and 2016 two large-scale housing projects requiring an urban edge line amendment were politically endorsed as indicated in Chapter 6, contributing towards the systematic eroding of the development edges policy’s credibility (WCPDF Pers Com 2016). The purpose of this chapter is to consider these urban edge line amendments as well as the development edges policy in general in terms of the adapted streams model of policy evaluation discussed in Chapter 3 (refer to Figure 3.3).

7.2 Process evaluation methodology

Information used in the evaluation framework were obtained from firstly, the development edges policy included in the CTSDF (2009) secondly, contemporary academic literature; thirdly, online and printed media reporting regarding the two urban edge amendments discussed; fourthly, official CoCT documentation and minutes of internal meetings; fifthly, development applications submitted by Planning Consultants for amendment of the urban edge; sixthly, objection letters received from internal and external stakeholders during the advertising of relevant development applications and the CTSDF review process; and lastly from anecdotal evidence from semi-structured interviews¹⁶.

7.2.1 The ‘problem stream’

Battersby (2016) states that although conflicts over land use within local governments are generally articulated in ways that emphasize technocratic rationality, it is essential to acknowledge that there are competing rationalities at play in planning decisions. The ‘problem’ is represented by what Rydin (2005: 76) refers to as “multiple claims to represent reality and multiple ways of knowing”. Ways of knowing is defined as the way in which one interprets the elements in a policy space and makes sense of the relationships among them; a narrative or story that holds all of the pieces together in a relatively coherent way (Schneider & Ingram 1997). In this part of the evaluation research, different framings of the ‘problem’ in each urban edge amendment proposal are presented.

¹⁵ Large parts of this chapter was published as Horn A 2018. Letting go: Evaluating spatial outcomes and political decision-making heralding the termination of the urban edge in Cape Town, South Africa. *Land Use Policy* 78: 176-184

¹⁶ Purposive sampling was used to select interviewees. The researcher applied her own knowledge from working experience to identify local planning and provincial officials, organisations and private planning consultants knowledgeable on the urban edge debate in Cape Town. A list of interviews and the interview questions asked can be found in ANNEXURE A. Ethical clearance was obtained through the University of Stellenbosch ethical clearance committee. Interviewees were allowed to indicate whether they prefer to remain anonymous or for their names to be disclosed. The list of interviewees (named and anonymous) can be found under “Personal Communication” in the References list.

7.2.2 The 'process stream'

Spatial planning policy decisions in South Africa were, prior to the promulgation of the Spatial Planning and Land Use Act (SPLUMA) (2013) legislated by the Municipal Systems Act (2000), the provisions of individual provincial land use ordinances, as well as the principles for land development prescribed by the Development Facilitation Act (1995). In the Western Cape, the provincial land use ordinance is the Land Use Planning Ordinance (LUPO) (1986). Before 2013, the CTSDP was approved as a structure plan in terms of the LUPO (1986).

Chapter 1, Section 4(7) of the Land Use Planning Ordinance (1985:6) states that:

"a structure plan may at any time, be amended or withdrawn with the approval of the Administrator¹⁷ in such a manner as may be determined by the Administrator and subject to inhabitants of the area of jurisdiction of any local authority concerned and other interested parties being afforded an opportunity of lodging objections or making representations".

This amendment however, according to section 4(9) of the LUPO must consider the preservation of the natural and developed environment and specify steps in this regard.

SPLUMA (2013:5) prescribes the following in terms of the preparation of municipal spatial frameworks:

- The Municipal Council of a municipality must by notice in the Provincial Gazette adopt a municipal spatial development framework for the municipality.
- The municipal spatial development framework must be prepared as part of a municipality's integrated development plan in accordance with the provisions of the Municipal Systems Act. Before adopting the municipal spatial development framework *and any proposed amendments to the municipal spatial development framework*, the Municipal Council must—
 - Give notice of the proposed municipal spatial development framework in the
 - Gazette and the media;
 - Invite the public to submit written representations in respect of the proposed
 - Municipal spatial development framework to the Municipal Council within 60 days after the publication of the notice; and
 - Consider all representations received in respect of the proposed municipal spatial development framework.

SPLUMA (2013) specifies that a spatial development framework adopted in terms of this Act must guide and inform the exercise of any discretion or of any decision taken in terms of this Act or any other law relating to land use and development of land by that sphere of government. The Act further stipulates that good administration must be practiced ensuring that:

- All spheres of government ensure an integrated approach to land use and land development that is guided by the spatial planning and land use management systems;

¹⁷ Referring to the competent local authority

- All government departments must provide their sector inputs and comply with any other prescribed requirements during the preparation or amendment of spatial development frameworks;
- The preparation and amendment of spatial plans, policies, land use schemes as well as procedures for development applications, include transparent processes of public participation that afford all parties the opportunity to provide inputs on matters affecting them.

Principles for land development prescribed by SPLUMA relates specifically to spatial sustainability and efficiency (Chapter 2(7)) stating that spatial planning must:

- Promote land development that is within the fiscal, institutional and administrative means of the Republic;
- Ensure that special consideration is given to the protection of prime and unique agricultural land; uphold consistency of land use measures in accordance with environmental management instruments;
- Promote and stimulate the effective and equitable functioning of land markets;
- Consider all current and future costs to all parties for the provision of infrastructure and social services in land developments;
- Promote land development in locations that are sustainable and limit urban sprawl;
- Optimise the use of existing resources and infrastructure;
- Minimise negative financial social, economic or environmental impacts

An application for urban development outside the urban edge would require an amendment to the urban edge as reflected in the CTSDf, and therefore, prior to SPLUMA (2013) constituted an application for amendment of an urban structure plan in terms of LUPO (1986). In such event, an application for the amendment of an urban structure plan (LUPO) is submitted to the Western Cape Department of Environmental Affairs and Development Planning (DEADP). The local authority (CoCT in this instance) must evaluate the application and provide a recommendation to the DEADP¹⁸. The DEADP then considers this recommendation and ultimately remains the decision-making authority. However, in 2013 the status of the CTSDf as an urban structure plan (LUPO) was rescinded by the DEADP, thereby eliminating the need to apply to the DEADP for amendment of an urban structure plan. Therefore any subsequent amendments to the urban edge (or CTSDf) are guided by SPLUMA. SPLUMA, regarding the amendment of a municipal SDF states the following (SPLUMA E20(1)):

“Before adopting the municipal spatial development framework contemplated in subsection (1) **and any proposed amendments to the municipal spatial development framework**, the Municipal Council must –

- (a) Give notice of the proposed municipal spatial development framework in the Gazette and the media;
- (b) Invite the public to submit written representations in respect of the proposed municipal spatial development framework to the Municipal Council within 60 days after the publication of the notice referred to in paragraph (a); and
- (c) consider all representations received in respect of the proposed municipal spatial development framework. “

¹⁸ This recommendation must be made by either the CoCT Council or the Mayoral Committee

Any amendment to the CTSDF would therefore, following the requisite advertisement and consideration of public representations, be approved by the Municipal Council, of which the Mayor is the executive decision maker.

7.2.3 The 'policy stream'

During the CoCT's internal evaluation of a development application, the application is circulated to internal departments for comment. The proposals made by the application are evaluated against the principles and requirements put forward by sector plans of internal line departments, one of which is the CTSDF and associated Development Edges Policy. The following stipulations by the development edges policy constitute the primary guide in evaluating applications for an amendment to the urban edge line (see Textbox 1):

Textbox 1: Evaluation of development applications as per Development Edges Policy (CoCT 2009: 12)

CoCT development edges policy (2009:12) states:

The following principles should guide all proactive and reactive amendments to the Urban Edge:

- i. The Development Edges policy provides that no urban development should be encouraged beyond the urban edge unless exceptional and unique circumstances exist. It is noted that the term "urban development" includes, amongst other things, golf estates, vineyard estates with a residential component, equestrian estates with a residential component, rural living estates, ecoestates, gated communities, regional shopping centres and offices. The guidelines and criteria outlined below are intended to guide decision-making.
- ii. The Urban Edge is aimed at managing uncontrolled horizontal spatial expansion so that effective and efficient use is made of undeveloped land and existing infrastructure within the existing urban edge. Decision-making must therefore be consistent with achieving a more compact metropolitan urban form, whilst noting the land and zoning limitations within the current urban footprint, coupled with the need to address the complexities of the less formal areas and urbanisation within the city, as well as the various environmentally sensitive areas within the existing footprint that limit internal expansion.
- iii. Amendments should be a logical extension of the Urban Edge, and based on the City's forward planning imperatives and the City's desired phasing of development.
- iv. A development application's alignment with the areas identified as potentially suitable for urban development in Cape Town's growth path does not justify support for an Urban Edge amendment.
- v. Reactive amendments to the Urban Edge, requiring bulk infrastructure investment not forming part of the City's infrastructure investment plans cannot be approved without absolute clarity and approval of both the cost of installing the infrastructure and the impact of the development on the City's operating costs. It should however also be noted that the availability of bulk infrastructure or the ability to provide infrastructure by a private developer does not justify support for an Urban Edge amendment.
- vi. The Urban Edge line should not be compromised whilst development opportunities for similar property markets still exist within the immediate surrounding urban areas. Given the scale and nature of the demand for government subsidised housing and the potential shortage of land available for this type of housing, the City recognises that, where it is a logical extension to existing urban development, a proactive amendment of the Urban Edge may be required to accommodate the needs of this market. At least 50% of the nett residential area released in this way should be used to accommodate households that receive a housing subsidy in terms of the National Department of Human Settlement's subsidy scheme, as well as housing serving the gap market. The development proposal must be linked to a written undertaking by the City's Housing Department that housing subsidies for the proposed subsidised units will be made available to the developer within 5 years. Such proposal must also be linked to the requisite infrastructure. This type of development will need to adhere to the principles guiding the 5-year urban edge line review.

The policy evaluation stream details the compliance of the application proposals with relevant policy frameworks.

7.2.4 The 'programme stream'

The ad hoc nature of decisions to amend the CoCT urban edge was intended not to inform or amend the development edges policy as such, even though the cumulative impact of these decisions may have ultimately contributed towards its termination. The outcome of the decision on each urban edge amendment proposal will be tabled in the 'programme' stream.

7.2.5 The 'political stream'

Berg (2007) identifies four main kinds of conflict: Cognitive conflicts (mainly technical disagreements regarding the different interpretations of information), interest conflicts (regarding the benefits or costs of alternative policies to different stakeholders), values conflicts (differences in ideology or personal preferences of stakeholders) and authority conflicts (jurisdictional agreements). Policy conflicts in local government usually revolve around cognitive conflicts, which theoretically can be addressed by rational decision-making and a set of trade-offs (Battersby 2016). However, a model of cost-benefit analysis fails to appreciate the complexity of public policy conflicts. Subsequently, during the dialogue between actors in policy decision-making, some dialects become more powerful than others. In this part of the evaluation, the power relationship between different role players contributing to the decision-making process will be discussed.

7.3 Case example: Schaapkraal (Philippi Horticultural Area, hereafter referred to as PHA)

7.3.1 Problem

The PHA is an area within the CoCT that is actively farmed for food crops. It covers an area of 3650 ha and has reportedly been farmed since the mid 1800s. There are "differences in opinion as to the portions of the PHA that are actively farmed; however, as land zoned for agricultural purposes, it is located outside the CoCT urban edge" (Rose, James & Patel 2016: 235). Figure 7.1 indicates the current land use pattern in the PHA (Umvoto 2017). According to a report by Battersby-Lennard and Haysom (2012), the PHA has historically been the primary source of fresh food produce for Cape Town, and still produces over 50% of vegetables consumed by the residents of CoCT. In 2012 the CoCT SDF stated that "to promote food security and mitigate food price increases, the City should therefore consider having high-potential and unique agricultural areas declared as agricultural landscape by the highest appropriate levels; and investigate ways in which all agricultural areas of significant value could receive local protection" (CoCT 2012: 65). Despite the intent of the CoCT SDF, the PHA is under considerable threat from urban encroachment, and the municipality has received a number of applications from developers to move the urban edge in order to allow for urban and commercial development (Battersby 2016).

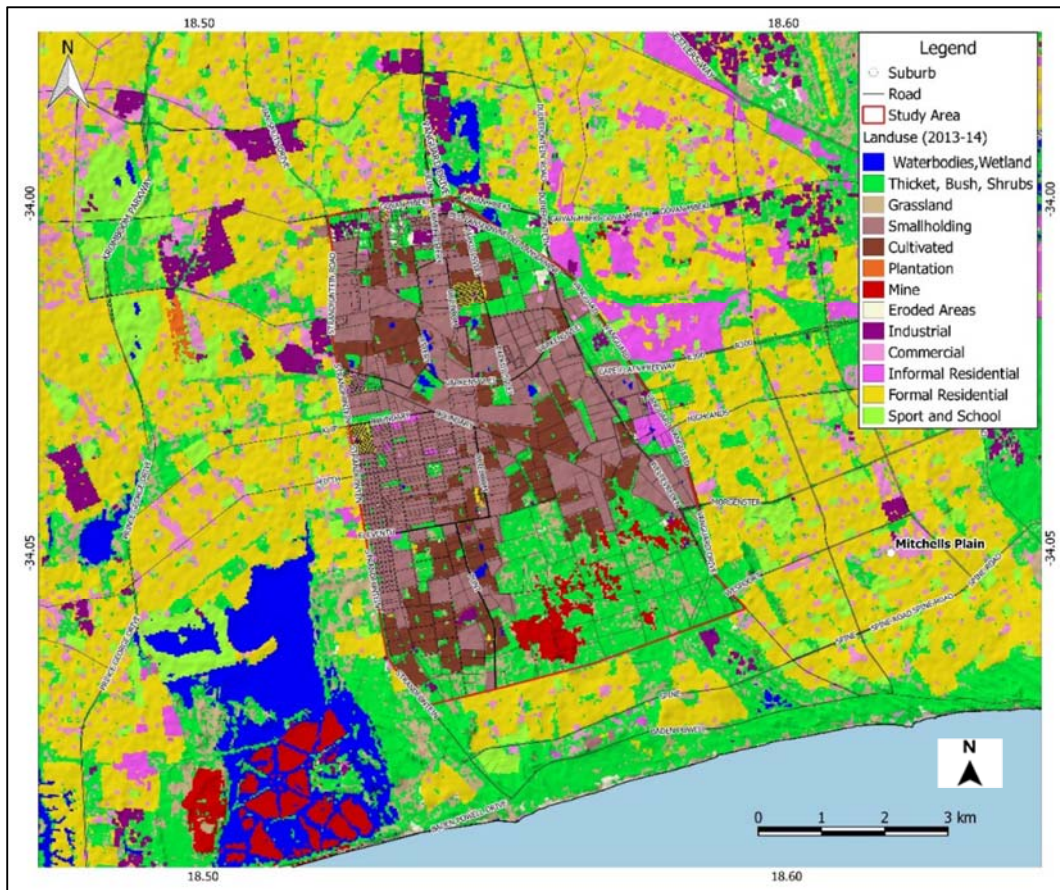


Figure 7.1 Land use distribution map within the PHA (Umvotu 2017:20)

7.3.2 Process

In 2009 a large area (472 ha) to the south-east of the PHA was included in the urban edge following an application by a private developer, Rapicorp (Figure 7.2). The application was not supported by the CoCT but superseded by the Western Cape Provincial Department of Environmental Affairs and Development Planning (DEADP). The application proposed a mix of land uses consisting of approximately 20 000 mixed density units, 41 ha industrial, 26 ha mixed use, 31 ha business/commercial, 45 ha community facilities and 157 ha open space. The core of the applicant's motivation for this application was:

- The property is currently unfarmed land;
- The water resources are both inadequate and problematic to support horticulture on the site;
- Urban development of the site will assist in reducing apartheid spatial distortions between employment and residential areas;
- Urban development will provide for the optimum use of existing urban resources and infrastructure in the area;
- Urban development will make a major contribution to the social well-being of people in the area; and
- The application will retain significant nature conservation open space where deemed as important for biodiversity (CoCT 2009a).

Formal comments were received from the following CoCT departments:

- Catchment Management
- City Health
- City parks
- Economic and Human Development
- Electricity Services
- Environmental Resource Management
- Housing
- Roads and Stormwater
- Solid Waste
- Waste Water
- Water Services

Comments were also received from the following national and provincial departments:

- National Department of Agriculture
- National Department of Water Affairs and Forestry
- Provincial Department of Agriculture
- Provincial Department of Transport and Public Works

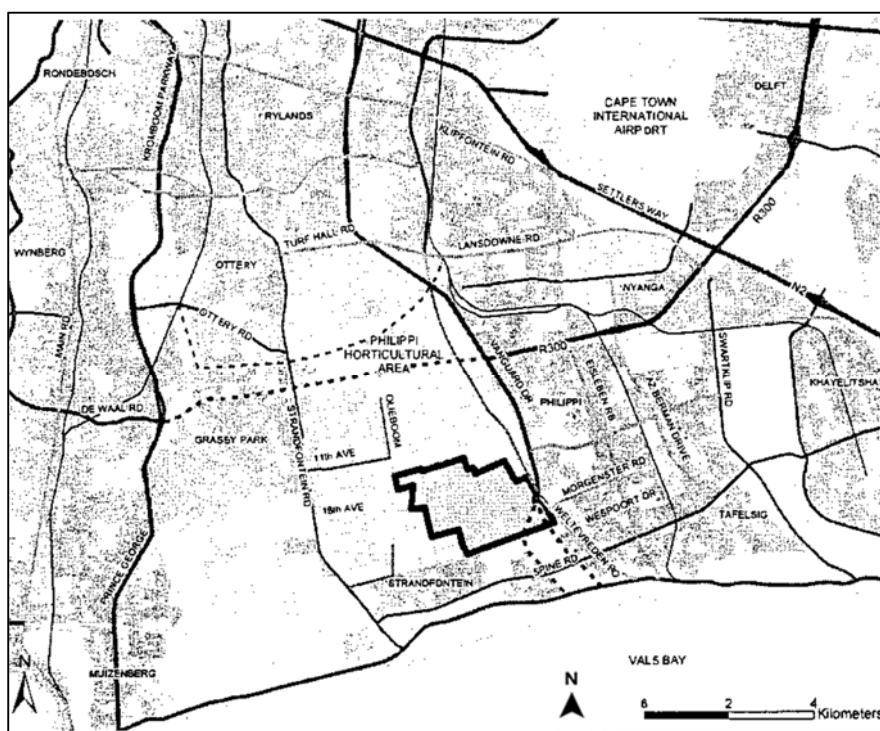


Figure 7.2: PHA application site, Rapicorp (CoCT 2009a: 18)

The comments ranged from strong objections through to qualified support. City departments concerned with agriculture, biodiversity and related socio-economic issues objected to the application based on loss of potential unique future value. The private and non-governmental public objector comments focus primarily on natural resource related issues and also on loss of potential. Significantly, the National Department of Agriculture objected to the application, whilst the Provincial Department of

Agriculture was supportive of it. Most of the city's infrastructural service departments provided qualified support for the application based on their ability to provide bulk capacity linkages. A significant exception to this is in regard to transport provision, where both the provincial and city transport departments identified major and geographically extensive bulk capacity constraints which would need to be addressed, and therefore both objected to the application as it did not include a proposal to address this. Strong support for the application was expressed by the CoCT department of human settlements, who saw the application as making a substantial contribution to the public housing needs in the city (CoCT 2009a).

In response to the comments, the applicant responded by contending that the objectors have disregarded scientific evidence which conclusively demonstrates that should the application area be farmed, it would severely compromise the sustainability of the rest of the (currently farmed) PHA. This argument relates specifically to the limited availability of groundwater and increased pollution of groundwater in the area (CoCT 2009a). A significant concern of the objectors – that approval of this application will result in there being no basis in the future for a rejection of further development applications in the PHA – was countered by the applicant's argument that the application area is unique and would therefore not create a precedent (CoCT 2009a).

Letters of objection were received from five organisations/objectors, a summary of which is reflected in Table 7.1:

Table 7.1: Comments on PHA Rapicorp application (CoCT 2009a)

Objector	Comment
John Holmes: Cape Town Market	"The contribution of the PHA to Cape Town Market and to the long term food security of the area is unquestionable." (CoCT 2009a:30)
Rob Small: Abalimi Bezekhaya	"If we destroy the PHA, we will increase the ecological footprint of the city substantially, i.e. food for the City needs to be transported further with the subsequent negative environmental impact." (CoCT 2009:31)
K Nayager: Consol Glass	"[The application site]...overlie potentially rich deposits of glass grade silica sand, which would be sterilised if the change in land use is granted." (CoCT 2009a:32)
Ayaaz Ahemed: Southern Ambition	"Pollution in the area will certainly increase and it's enough said about the ozone and bad gasses that is emitted." (CoCT 2009a: 33)
Bridgette Scholsz	"We already have to leave at 6am to get to Athlone at 7pm in the morning, if you're lucky." (CoCT 2009a:34)

The recommendation to the Council by the CoCT Department of Spatial Planning and Urban Design (SPUD) not to support the application was based firstly on the application's inconsistency with CoCT policies i.e. the PHA Management Plan (2000), the MSDF (2001) (including the urban edge), the Agricultural Land Study (2006) and the CoCT Urban Agricultural Policy (2007). The main argument rested on the conflict between the land use proposed by the application and the CoCT's view that the area is able to sustain future horticultural activity, has a sufficient water-supply to support farming and has an inherent, unique value. The likely impact the proposed development would furthermore have on surrounding land uses, as well as the limited socio-spatial integration the proposed development is likely to achieve further substantiated the Council's recommendation against the application (CoCT 2009a).

SPUD further put forward that the area was not being farmed at the time because the sand mining had to be concluded first, after which farming on the site could recommence. Further to their argument was the CoCT agricultural land study's identification of this application area as a valuable emerging agricultural area (CoCT 2009a).

In November 2012 a second development application was submitted by a developer, MSP, for the amendment of the CTSDF to reflect a redrawn urban edge that includes several erven in the southwest of the PHA (Figure 7.3). The application proposed a change of land use from agricultural land use to urban development. The revision was deferred by the Mayoral committee until a study could be commissioned to establish the extent of the area's contribution to food security in the city (2012a). However, in July 2013 the November 2012 decision was rescinded by the CoCT Council, and the application for the urban edge revision was supported (CoCT 2013: 3).

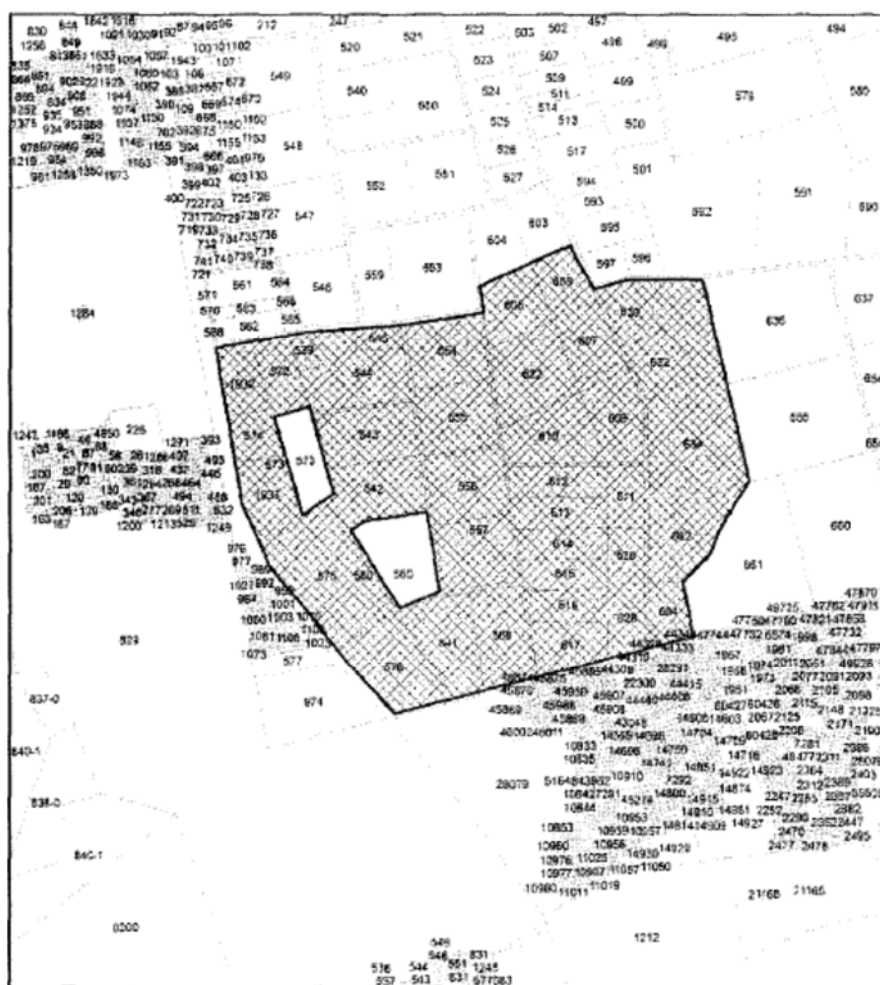


Figure 7.3: PHA application site, MSP (CoCT 2012a:13) – scale not included in original source.

The application proposed to create an integrated live, work and play environment, consisting of a mixed-use corridor, a commercial node of 10 ha, residential development of approximately 6000 units, and 7 ha of institutional facilities. The motivation by the applicant in favour of the proposal was based on dynamic land use changes in the PHA area that have resulted in the land's ability to serve as productive horticulture being compromised (Figure 7.4). Key to this argument was the applicant's claim that the demarcated PHA is not based on scientific data but was rather the result of historic demarcation (CoCT 2012a).

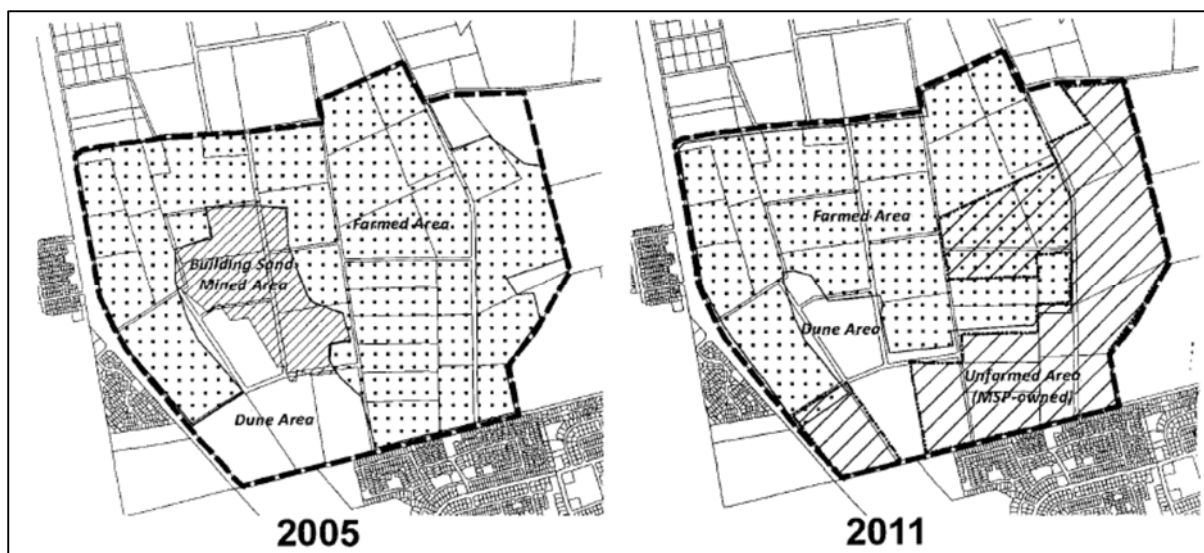


Figure 7.4: Applicant's representation of actively farmed portions in relation to the application site (CoCT 2012a:3)

The application was circulated for comment to relevant National, Provincial and City Departments. Objections were received from the National Department of Agriculture, the Provincial Department of Agriculture, The Provincial Department of Heritage, the CoCT Department of Economic and Human Development, the CoCT Department of Environmental Resource Management, and the CoCT Parks Department. Support for the proposal came from the Provincial Department of Water Affairs, the CoCT Department of Solid Waste Management, and the CoCT Department of Human Settlements (CoCT 2012a).

Major points from the objections related to:

- The high potential of agricultural land that should be protected;
- The contribution that the PHA makes to the production of vegetables;
- The PHA as a heritage resource that is worthy of preservation;
- The potential contamination of the Cape Flats aquifer by urban development on the PHA;
- The road network capacity's ability to cope with the proposed scale of development.

Objections were received from eight external stakeholders/organisations, a summary of which is presented in Table 7.2.

Table 7.2: Comments from external objectors, second PHA application (CoCT 2012a)

Objector	Comment
Rob Small (Abalimi Bezekhaya and the Harvest of Hope Community)	Objection lodged
Peter Meakin	"We objected strenuously and publicly to the last '300 ha land grab' in 2009, which was pushed anyway by the 'high-ups', and that 300 ha is now lost to the PHA for good." (CoCT 2012a:18)
Mark Swells (Abalimi Bezekhaya and the Harvest of Hope Community)	"Its about time that government starts to ignore the advice of so-called agricultural experts who have graduated from institutions sponsored by multinational agri-input corporations, and adopt a more sustainable, more productive climate-resilient agricultural policy and practice in line with what is called for by science and the people." (CoCT 2012a: 19)
African Food Security Urban Network	"This objection is premised on the fact that authorising a change in land use would be grossly irresponsible in light of the fact that a far greater level of understanding is required in order to fully appreciate the immediate as well as longer term consequences of the removal of this collection of assets from the community." (CoCT 2012a:20)
Schaapkraal Civic and Environmental Association	"While the local commercial farmers have solid and profitable operations that were built over time, emerging farmers demonstrate the most appetite and vision to take the PHA into the next millennium. Currently there are eight emerging farmers in the PHA and countless other small scale farmers on the Cape Flats who are hungry for land to increase production." (CoCT 2012a: 25)
John Raimondo	"Any consideration of a loss of any area of the PHA must consider the lost opportunity cost of no longer being able to use land that is currently zoned for horticulture as a source of the [city's] food production." (CoCT 2012a:30)
Institute for the Restoration of the Aborigines of South Africa	"Official notice of a legitimate landclaim." (CoCT 2012a:31)
LOGRA Civic	"Much is made of the impact of the lack of management of the area and the resultant illegal land use, but we submit that it is a strange logic to use the mismanagement by the authorities as a reason to change the land use." (CoCT 2012a:32)

In essence, the comments from external objectors related to the loss of productive farmland that would occur as a result of the proposed development, as well as the potential loss of employment opportunities to those currently working on productive farms. The applicants argued in response to the objectors that current land owners in the PHA lack the will and motivation to undertake horticultural activities as a result of them being overwhelmed and discouraged by crime and other "urban shadow" challenges in the PHA (CoCT 2012b: 37).

7.3.3 Policy

The recommendation from CoCT Department of Spatial Planning and Urban Design (SPUD) to the CoCT Council not to support the application was based on the following arguments:

- The application is not consistent with the following CoCT policies:
 - CTSDF 2012
 - Cape Flats District Plan 2012
 - PHA Rapid Planning Review (2009)
 - Philippi Horticultural Area Management Plan (2001)
 - CoCT Agricultural Land Review (Draft 2008)
- The specific application site is located in the most intensively farmed portion of the PHA
- Geophysical and climatic conditions make this part potentially the best horticultural land in the PHA
- Part of the site contains silica sand deposits, a valuable and high-quality natural resources extraction which would be compromised by urban development
- Significant new development areas have already been identified in the broader area that would contribute to addressing urban development and housing needs

The CoCT Cape Flats District Spatial Plan (2012b: 33) notes that:

“(p)laces of cultural and historic significance that require conservation and enhancement within the district include primarily those in and around the Philippi Horticultural Area (PHA). Apart from its high agricultural production to the city, the PHA, and most importantly its urban interface areas, should become a local, district, and a metropolitan-wide attraction”.

This plan also provides the following prescriptions regarding the urban edge around the PHA (2012b: 49):

- Land beyond the urban edge line should not be used for urban development.
- Promote development form which supports positive urban edge conditions with due regard for local considerations (e.g. fire risk, visual impact).
- The urban edge in Cape Flats District is considered a long-term edge line, where the line has been delineated in a position to protect natural resources.

Figure 7.5 indicates the conservation and biodiversity zones associated with the PHA as reflected in the CoCT Cape Flats District Plan (2012b). In this image, the different shades of green represents varying levels of biodiversity and conservation ranging from “Critical Biodiversity Areas” (dark green) to “Ecological Support Area” (lightest green) and “Natural Vegetation” (solid green). The District Plan details the land use categories that will be permitted in each of these biodiversity and conservation zones, from land uses that would be undesirable, land uses that may have a significant impact and land uses that may not have a significant impact.



Figure 7.5: Conservation and biodiversity in the PHA (CoCT 2012b: 64) – scale not included in original source.

Figure 7.6 reflects the agricultural resources in the PHA as identified by the CoCT Cape Flats District Plan (2012b), the darker brown shading representing “Agricultural areas of significant value given existing use” and the lighter brown marked as “Rural”.

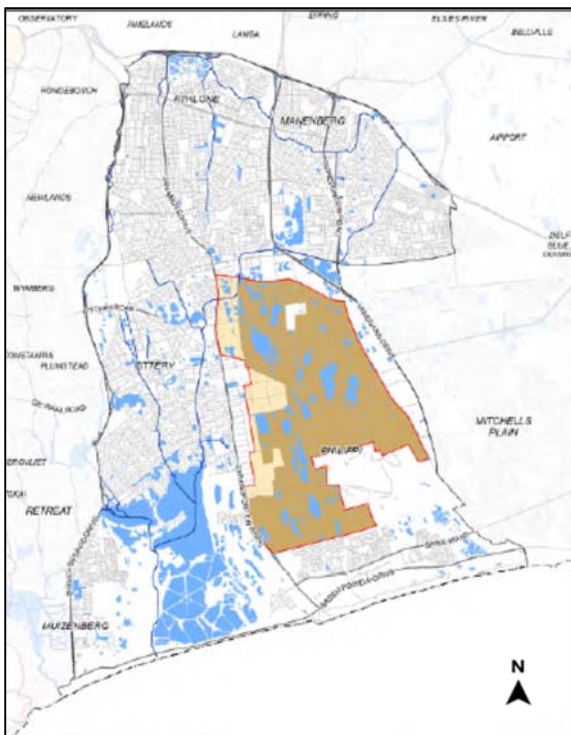


Figure 7.6: Agricultural areas in the PHA (CoCT 2012b: 71) – scale not included in original source

7.3.4 Programme

The first application for urban edge amendment submitted by Rapicorp submitted in 2008 was not supported by CoCT Mayoral Committee in 2009 (CoCT 2009b). This recommendation was overturned by the DEADP who supported the application (Figure 7.7).

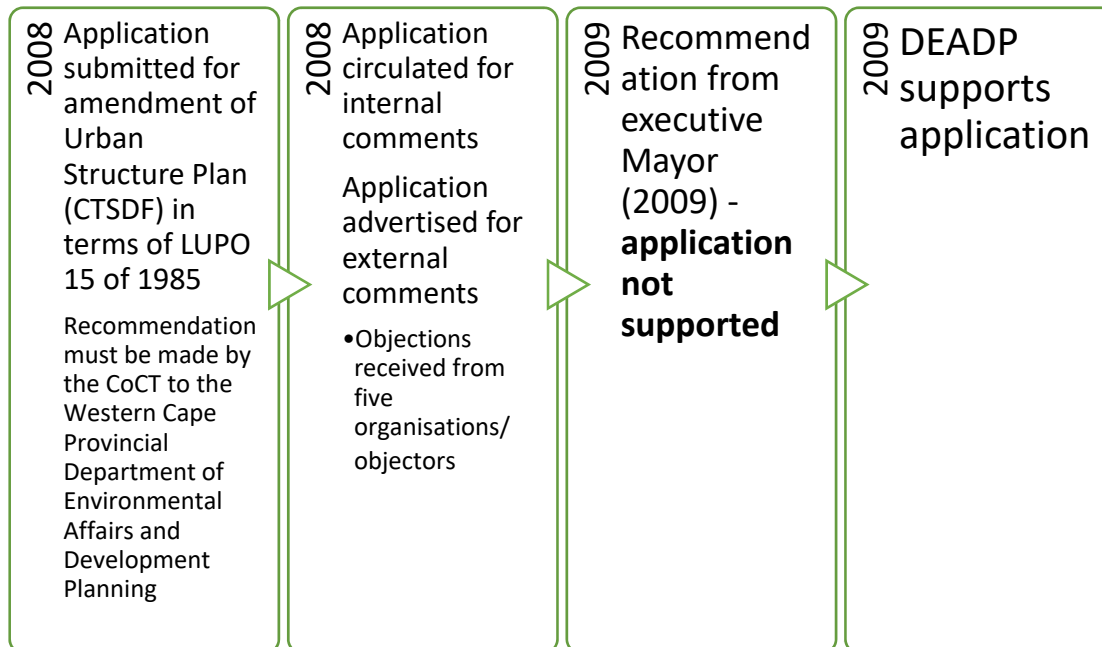


Figure 7.7: Process of decision-making Rapicorp application 2009 (author’s own construct)

The second application to amend the urban edge brought by MSP was supported by CoCT Mayoral Committee in July 2013 (CoCT 2013). The withdrawal of the CTSDP, as an Urban Structure Plan in 2014, meant that a decision by the DEADP was no longer required for this amendment (Figure 7.8). The CoCTs recommendation has subsequently been taken on appeal and is currently the subject of a high court case brought by the Philippi Food and Farming Campaign (CoCT Pers Com 2018). Amendments to the urban edge line in the PHA since 1967 are indicated in Figure 7.9.

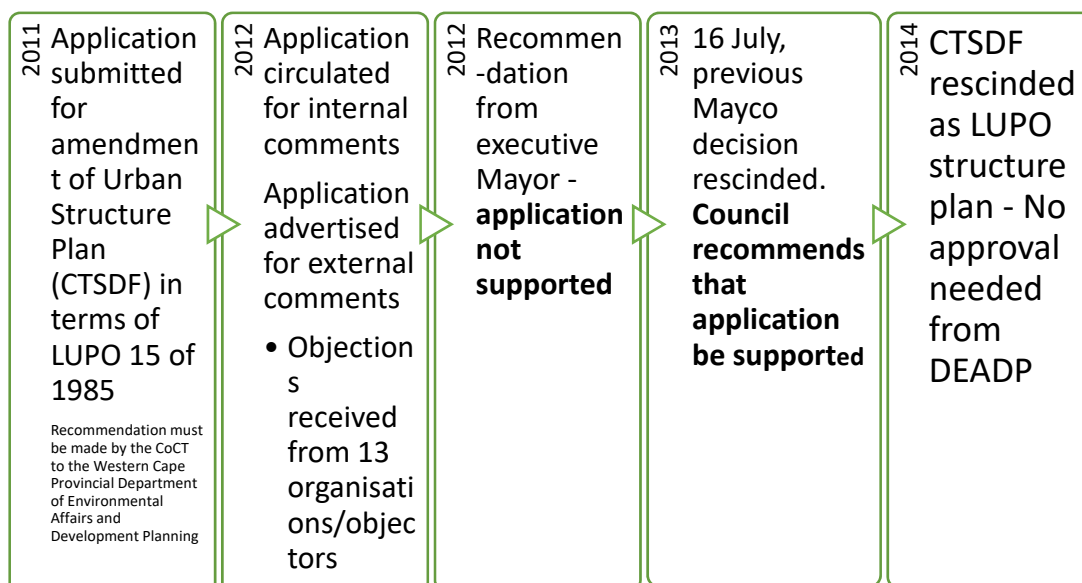


Figure 7.8: Decision-making process, second PHA application (author’s own construct)



Figure 7.9: Amendments to the PHA urban edge since 1967 to date (Umvoto 2017: 6)

7.3.5 Political

The PHA was described by the Mayor of CoCT as an undesirable place to live in its present state, and that landowners wish to sell and move away as a result of high crime levels, illegal dumping and the threat of imminent land invasions (De Lille 2013). The proposed development (2012) was portrayed by the Mayor and the developer as assisting in addressing the city's severe lower-income housing backlog. Mayoral committee member Gareth Bloor cited the approval of "low-cost residential development" on "underutilised land" as a compromise that the CoCT has been forced to make because of the critical housing need (Rose et al. 2013:239). According to Rose et al. (2012), these viewpoints appear to suggest that public decision makers understand the complexity of issues in CoCT better than other actors and claiming to be neutral, they are the only ones capable of making responsible decisions. It remains unclear what information was used to inform the decision to approve the urban edge amendment. Both the Mayor and the Mayoral Committee members made reference to a "raft of information" and "facts on the ground in Philippi" in the media but this is not qualified (De Lille 2013a). The urban edge amendment was approved before the conclusions of a Food System Study, recommended by the Mayo in 2012, could be tabled (Rose et al. 2013:236).

In 2013 the Mayor of CoCT released a statement saying that the "urban edge is an artificial barrier that assists the City with planning and which can be moved or amended as needs require" (De Lille 2013b:1).

The difference in policy interpretation is evident in the response to the Mayor's statement by academia from the University of Cape Town (Dewar et al 2013:2):

"The statement that the 'urban edge is an artificial barrier that assists the city with planning and can be moved or amended as needs require', is breathtaking in its inaccuracy and clearly reveals that some politicians do not have a clue about their own policies. The very role of an urban edge, the demarcation of which must be based on careful analysis (it is far from arbitrary), is dependent upon it being, at worst, very long-term and, at best, permanent. The primary, interrelated purposes of edge demarcation are twofold: to prevent urban sprawl from running roughshod over rural and wilderness landscapes, doing irreplaceable damage in the process (in fact, 'unassailable urban creep' is not inevitable – the edge is meant to combat this), and to promote greater compaction and structural intensification (by channelling growth inward) in the interests of efficiency, greater equity and convenience, and climate change mitigation. By omission, the edge should define the future growth path of the city. It makes absolutely no sense to have such a policy if it is continuously being changed."

In response Mayor De Lille indicated that the case for the amendment to the PHA urban edge was made to Council in an open and transparent manner, following the law and proper administrative procedure. "What then can the motive be of the 'nameless sources' in portraying me as something just short of a hysteric? And then I remember another truth as old as the different treatment between men and women: some people are resistant to change. They talk about improving people's lives and addressing the imbalances of the past but when push comes to shove, they are desperate to retain the Apartheid spatial status quo" (De Lille 2013).

7.3.6 Critical Analysis

The PHA represents a valuable portion of land in the CoCT from both an environmental and heritage point of view. This is illustrated by the number of CoCT policies in place to safeguard the area against urban encroachment, as well as the number of objections to urban development from environmental and agricultural lobbyists. The urban edge line and the development edges policy provided SPUD with defined criteria by which to evaluate the two development proposals received. Taking these and other CoCT policies into account, SPUD made recommendations regarding both development proposals to the Mayoral Committee. Since these recommendations were based on baseline information of CoCT policies, the recommendations by SPUD can arguably be called "rational". In both instances the applicants responded to the recommendations from SPUD by stating that scientific evidence had not been taken into account during decision-making. This is in reference to each applicant's independent studies of the application area, yielding differing recommendations than the CoCT studies. Assuming (cautiously) the unbiasedness of the independent studies, the applicants' arguments can also be called "rational".

The comments received on both development proposals from internal and external stakeholders represents the pluralist/communicative action part of the decision-making process. Both support and objections were received from different stakeholders who commented on both applications. Support came predominantly from local and provincial housing authorities, eager for the opportunity to turn well-located land into state-driven lower income housing projects. The anticipated low income housing yield on both application sites would however have been limited, seeing that both proposals came from private sector developer companies and both proposed limited numbers of low income housing. The

bulk of these proposals consisted of GAP¹⁹ and higher income market housing. Support also came from most internal services departments, based on the current availability of bulk services in the area. Objections came from farmers, residents and environmental lobbyists in the area, pleading for the protection of the PHA in the interest of local farming practices and the protection of local jobs. Local and provincial environmental departments, as well as planning departments also objected to the proposals, claiming the high potential of agricultural land worthy of protection in the PHA. In essence, input received from external and internal comments leaves opinions divided.

In 2009, under the former mayor of CoCT, (current) Premier Helen Zille, the first development proposal on the PHA was not supported. However, the DEADP supported the application. The second application was also not supported at first by the Mayor (since 2011), Patricia De Lille, however, this decision was later rescinded by herself and the application supported in 2013. No evidence as to what informed the rescinded decision can be found in the minutes of the meeting of 2013 during which support was given to the second PHA application. The Mayor's own statement suggests that she herself has come across "new information" that lead to her decision. This information is not presented formally and makes it impossible to interrogate. The legitimacy and objectivity of such information is therefore suspicious. A possible conclusion is that the Mayor is referring to the independent reports offered by the development applicant. This suggests that the Mayor preferred the information from independent private companies to that of the local planning department. Whether the Mayor had a reason not to trust internal policies is not disclosed in any documentation, nor from any of the personal communication, save for the reference in her public statement that some people are desperate to try and retain the apartheid spatial structure (De Lille 2013). A fair assumption would therefore be that the Mayor had stood sympathetic toward the cause of the development applicant, taking a decision of her own accord that was counter CoCT policy, and thereby supporting a neoliberal agenda.

The gradual amendments made to the PHA since 2009 suggests incremental decision-making and a path-dependent trajectory of conceding to development pressure in the PHA area. Since 2009 therefore there has been incremental support for the neoliberalist developer agenda contrary to "rationalist" CoCT policy. It comes across as if the Mayoral Committee in both development proposals did not give their support, but that support for the applications ultimately came from the DEADP (2009) and the CoCT Mayor (2013). This indicates that the ultimate locus of decision-making authority in CoCT rests with the Mayor as individual.

7.4 Case example: Wescape

7.4.1 Problem

An application was submitted by NuPLAN Africa (acting on behalf of the owners of the property) in 2011 for the amendment of the CTSDF urban edge line in order to permit large-scale urban development over the next 20 years. The site is located in the middle of a rural area approximately 17 km north of the built-up edge of the city, 11 km south of Atlantis and 14 km east of Melkbosstrand (Figure 7.10). The site currently has no access to bulk water or waste water facilities and inadequate access to electricity. No infrastructure master planning related to the area has been undertaken and it is not part of the utility services directorate's current planning horizon. The scale, location and timing of installing the required infrastructure investment therefore present challenges and risks which may undermine the successful

¹⁹ Housing for a market of individuals earning between R7500-R15000 per month.

implementation of the project. The scale, location and timing also raise questions regarding the prioritisation of capital investment by the city in this location versus other locations within the built area of the city. The estimated cost of bulk infrastructure required to support the development is in the region of R1.5 billion. This cost excludes the 'downstream' reinforcement and upgrading of the infrastructure that may be required and be at the public sector's cost (Ciriola 2012).

Should the market respond positively to Wescape's remote location, and the developer meets his annual delivery target of 10 000 houses per annum, the implication is that some 59% of the annual housing delivery in the Cape Town metropolitan area will be located at Wescape, 17 km north of the city's built-up edge (Watson 2016). The proposed 200 000 houses planned for Wescape will mean that a total of approximately 1 million people would potentially be resident in the Koeberg evacuation zone. This number and scale of development is considered to be ill advised for an area that is subject to evacuation requirements (Watson 2016). For comparison purposes, 170 000 and 100 000 persons were evacuated in the cases of Chernobyl and Fukushima respectively, and this evacuation took approximately 4–5 days. This is a risk and raises issues of the City's responsibility in this regard in the longer term (CoCT 2012c).

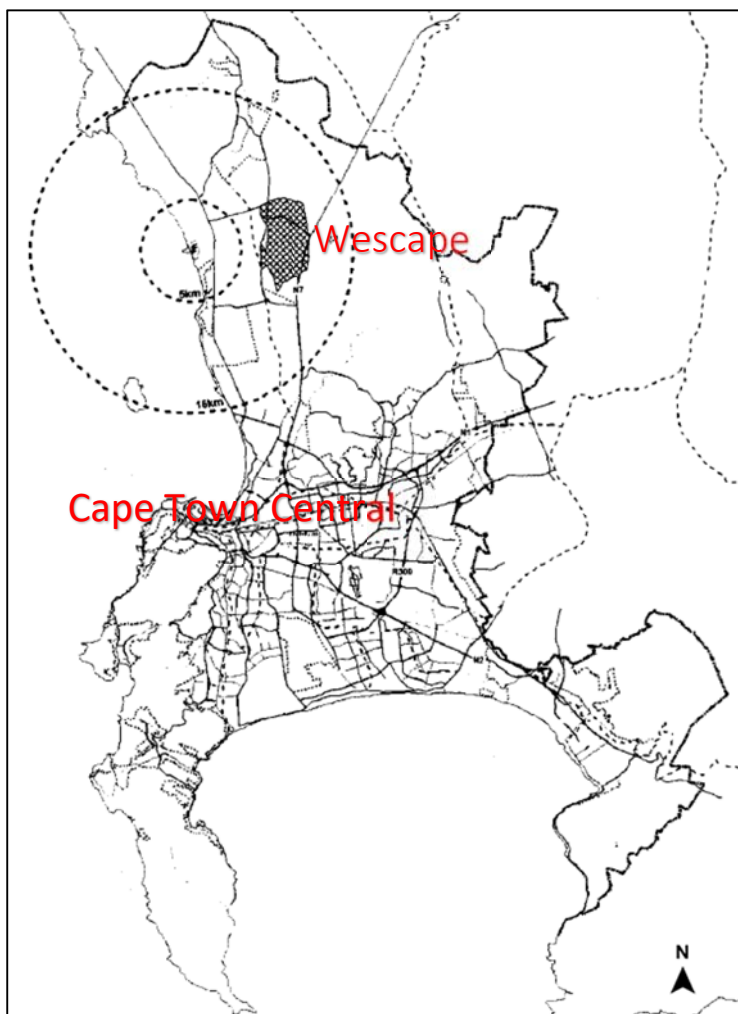


Figure 7.10: Application site, Wescape (CoCT 2012c:4) – scale not included in original source.

7.4.2 Process

The application site is located north of the existing urban edge, directly west of the N7, east of the existing Atlantis railway line and south of the Dassenberg small holding area, within the Blaauwberg

District of the City's municipal area. The proposal comprises approximately 200 000 dwelling units of which a share of roughly 25% will be committed to subsidized housing²⁰, lower gap housing²¹, upper gap housing²² and free standing housing²³ respectively (CoCT 2012c). The planned conversion of the Atlantis railway for commuter use is of key importance and will form the backbone of the development corridor. A light manufacturing zone and business and retail nodes are proposed to provide residents with employment opportunities that are close to home. The applicant proposes a unique financial strategy in order to ensure that the majority of residents in Wescape will also be employed there (CoCT 2012c).

The motivations from the applicant in support of their proposal related firstly to the scale of the development which, contrary to development proposals inside the urban edge, is not compromised by over-capacitated infrastructure and NIMBYism²⁴. It is argued that the Wescape development will initiate bulk services (funded by the developer) in the larger north-western area of the metro, which will act as a catalyst to future development. Secondly, the land in question is claimed to be of low agricultural value, since it has been farmed for over 300 years and therefore "leached of nutrients" (CoCT 2012c:54). The applicant argues that by allowing this development, pressure for development will be relieved on other sites in the vicinity which may have more agricultural potential. Thirdly, the applicant puts forward that the Wescape development will assist in addressing the City's housing backlog of an estimated 400 000 units, a backlog that is impossible to address at scale on well-located land inside the urban edge.

The application was circulated for external and internal comments, and 13 objections were received. The main issues arising from the comments related to bulk infrastructure capacity, risks of such large-scale development around the Koeberg Nuclear Power station, the application's contravention of CoCT policy and the potential loss of agricultural land. Objections were received from Eskom, Koeberg Nuclear Power Station, as well as from the National Nuclear Regulator. No provincial departments objected to the application, and the Provincial Department of Human Settlements indicated support for the proposal. It is noted in the CoCT Report to the Economic, Environment and Spatial Planning Portfolio Committee (2012c) that the City's Human Settlements Directorate, although in principle supporting initiatives such as this, has not yet committed itself to reserving capital subsidies for this project, and their support is not currently a proxy or actual 'agreement' with the applicant. The CoCT's Departments of Emergency Services: Fire, Disaster Risk Management; Utility Services: Water and Sanitation; Utility Services: Technical Strategic Support; Environmental Resource Management; and City Parks objected to the application, while the CoCT's Department of Human Settlements indicated support for the application.

The main arguments from the objections related to the following (CoCT 2012c):

- If approved, the application would prematurely lock the City into a development option at the expense of other priorities in terms of upgrading and maintenance of existing infrastructure linked to densification imperatives.

²⁰ Housing for income less than R3500 pm

²¹ Housing for income less than R7500 pm

²² Housing for income less than R15 000 pm

²³ Housing for income more than R15 000 pm

²⁴"Not in my backyard" (NIMBY) referring to citizens generally being in favour of public policy as long as it doesn't have an affect on neighbourhood level.

- The City has not currently prioritized this area for investment and is unlikely to do so in the short to medium term.
- The upgrading of the Atlantis railway line, which is crucial to the development, has not yet been finalized.
- The site has only one touch point with this railway line and is therefore locationally challenged.
- The National Nuclear Regulator (NNR); Eskom: Koeberg Nuclear Power Station; as well as the City's Disaster Risk Management Centre have all objected to the proposals (strong objection from the NNR). The application has not presented any form of quantitative evacuation modelling, and therefore does not comply with the Koeberg Nuclear Emergency Plan's (KNEP) requirements. The addition of 200 000 houses within the Urgent Protective Action Planning Zone (UPZ) (which could result in a total of approximately 1 000 000 residents in the UPZ) would present onerous and difficult evacuation requirements in the event of an accident at Koeberg.
- Although the CTSDf indicates the site as being located within an area that is potentially developable in the long term, the inadequate bulk infrastructure systems and the site's distance from the existing built edge of the city (approximately 17 km) and from Atlantis (approximately 11 km) makes the application premature.
- The site has major bulk infrastructure limitations, which would require significant upfront capital investment. Development contributions will not pay for bulk infrastructure upgrade or new capacity.
- The application does not present a proposal that is sufficiently robust (from an economic development point of view) to overcome the disadvantages of the site's remote location. The economic premise on which the proposal is based is not adequate for ensuring sustainable mixed-use development on the site.
- The application is not aligned with the City's current spatial planning policies, including the draft Blaauwberg District Plan, the approved Northern Metro Urban Edge Study or Rural Management Plan, which are all geared to achieve a compact city that is economically sustainable in terms of services provision and delivery.

Table 7.3 provides a summary of the external objections received:

Table 7.3: External objections received, Wescape (CoCT 2012c)

Name	Objection
David and Cathy Butler (Smallholding landowners)	"The development will degenerate into nothing more than a low cost housing slum, which will impact heavily on the value of our property." (CoCT 2012c:54)
Cecilia Brummer, on behalf of the Driefontein landowners	Objected to inadequate public transport and projected traffic congestion, evacuation risks associated with Koeberg Nuclear Power Station, the premature amendment of the urban edge and negative environmental impacts related to agricultural land (CoCT 2012c:57).
Atlantic Beach Home Owners Association	"... the applicant is trying to outmanoeuvre the development planning process just before the new CTSDf is to be approved." (CoCT 2012c:59)
Melkbosstrand Ratepayers Association	"... thousands of hectares in the current urban edge must first be developed." (CoCT 2012:60)

7.4.3 Policy

The site is located outside the recently approved CTSDf's medium- to long-term urban edge line. The Policy Guidelines from this document state that no urban development should be encouraged beyond the urban edge unless exceptional and unique circumstances exist. In the case of this application, no extraordinary conditions exist and the lack of bulk infrastructure (and necessary city funding) specifically detract from the suitability of moving the urban edge. The purpose of the urban edge in this case is not to protect agricultural land, but to ensure that development is led by the provisions of infrastructure in a logical sequence. The CTSDf advises that the existence of soils with a lower agricultural potential or the ability of a developer to provide infrastructure not be considered sufficient reasons to amend the urban edge.

The Blaauwberg District Plan (BDP) is a medium-term plan (developed on a +/- 10 year planning frame) that provides guidance on development within the Blaauwberg district. In terms of development phasing, the land within the Blaauwberg urban edge is considered sufficient to accommodate development over the next 10 years (CoCT 2012d). The BDP therefore does not propose urban development for the site. The site is largely designated in the BDP as Buffer 2, supporting agriculture and conservation uses with the focus on maintaining the rural and agricultural character of the area (Figure 7.11). The site is, however, not indicated as critical biodiversity worthy of protection (Figure 7.12) The BDP further reinforces the need to ensure that development within the area aligns with the safety requirements of the Koeberg Emergency Plan (CoCT 2012d).

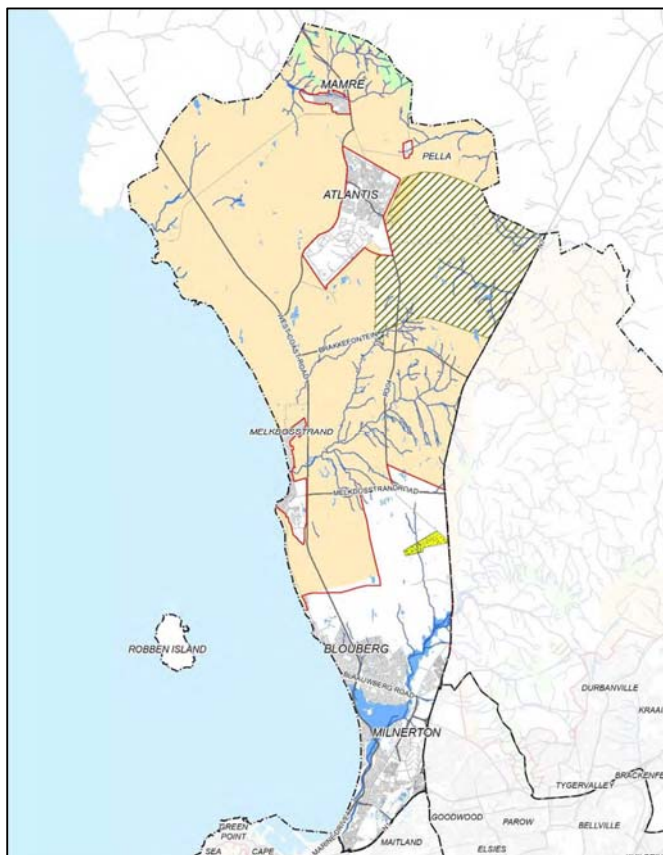


Figure 7.11: Areas of Agricultural Significance in the Blaauwberg Region (CoCT 2012d: 44) – scale not included in original text.

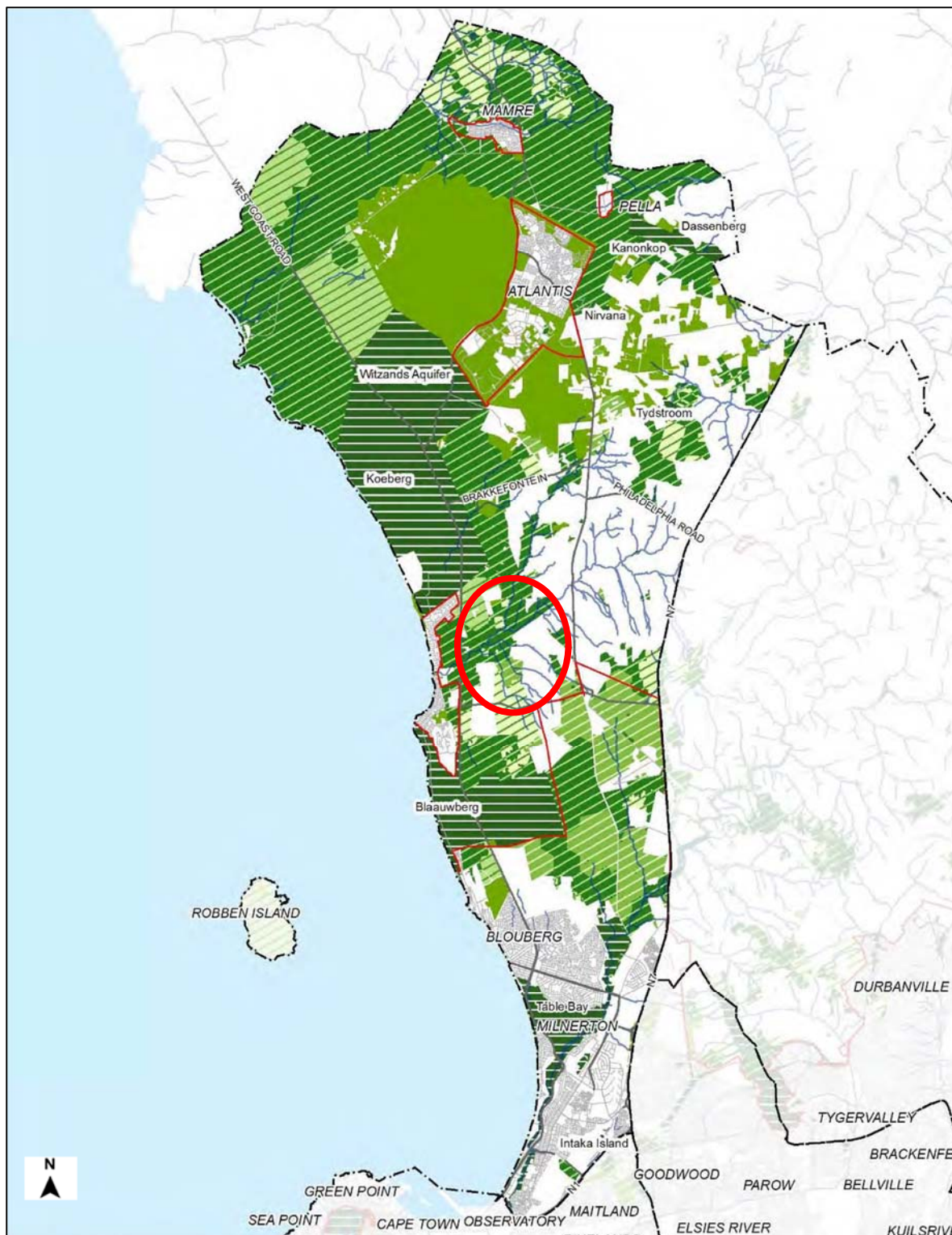


Figure 7.12: Biodiversity Map of the Blaauwberg Region (CoCT 2012d: 51) – scale not included in original source.

Assessment in terms of the CoCTs infrastructure sector plans revealed that the location and the scale of the development will not allow phasing of the construction of the bulk infrastructure. The bulk water supply (Voelvlei pipeline), a new waste water treatment works and electricity bulk infrastructure supply (Sterrekus substation) will have to be provided for the full development as an upfront investment i.e. before the first house can be occupied. This bulk infrastructure will also be built exclusively for this development as it is not required elsewhere in this corridor at this point in time and does not unlock

development of land to the south of the site because of other bulk infrastructure required in these areas. Only the reticulation system and local road network can be installed in phases to align with the development rate. The project initiation costs and holding costs are therefore likely to be very high. The water and sanitation department has indicated that they cannot support the Wescap proposal because the bulk service requirements for the subject area are considered premature and of such a magnitude that it is unaffordable (CoCT 2012c).

The applicant has stated that: “As with other greenfield developments in the city, it is assumed that the developer would be required to provide the necessary bulk infrastructure and recoup this through development contributions that would have been payable” (CoCT 2012c:78). It is noted that development contributions paid by developers to the city are currently used to pay for reticulation infrastructure while the city carries the cost of bulk infrastructure; i.e. development contributions do not currently pay for bulk infrastructure. A significant financial impact on the city as a result of the proposed development and an opportunity cost in terms of bulk infrastructure required elsewhere in the city is therefore likely.

The National Nuclear Regulator (NNR) was established by the National Nuclear Regulator Act (NNRA) (Act 47 of 1999) as South Africa’s nuclear licencing agency, responsible for regulating the South African nuclear industry. As the applicant for nuclear authorisation, Eskom must apply for a nuclear license from the NNR to generate nuclear electricity at the Koeberg Nuclear Power Station. In order to retain their nuclear licence, Eskom must demonstrate compliance with nuclear safety standards described in the NNRA and subsequent regulations and enter into an agreement with the relevant municipal and provincial authorities to establish an emergency plan and submit such plan for approval by the NNR. The Koeberg Nuclear Emergency Plan (KNEP) was approved in August 2005 by the NNR, provisions (as it relates to evacuation) which are reflected in the CTSDf. All development within the Koeberg Nuclear Power Station exclusion zones must comply with these development controls as prescribed by the KNEP in the CTSDf. These controls specify that compliance must be demonstrated by means of a traffic (evacuation) model approved by the CoCT and acceptable to the NNR. The applicant has not presented any form of quantitative evacuation modelling in his application.

7.4.4 Programme

Following scrutiny of the internal and external objections to the proposal, the Economic, Environment and Spatial Planning Portfolio Committee (EESP) (as advised by SPUD) recommended that the application should not be supported (CoCT 2012c). However, a second deliberation by the same portfolio committee later that year (8 November 2012) recommended that further information would enable the CoCT to make a more informed recommendation (CoCT 2012e). This recommendation served before the Mayoral Committee in December 2012. The committee amended the EESP’s recommendation to reflect support for the application (CoCT 2012e) (Figure 7.13). This recommendation was submitted to the DEADP and the DEADP approved the application in December 2013 based on this recommendation (Bredell 2014).

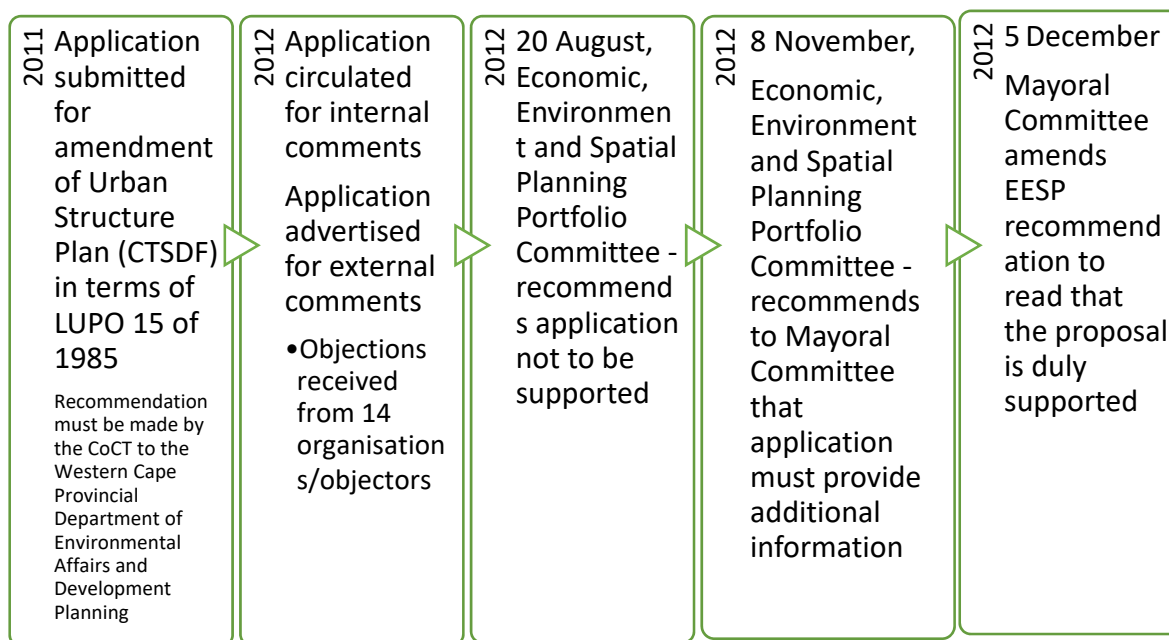


Figure 7.13: Decision-making progress, WescapE (author's own construct)

7.4.5 Political

In July 2014 Eskom instituted legal action against the CoCT and the DEADP in the Western Cape High Court over the planned development of WescapE (Fin 24 2016). In its court papers Eskom suggests that the DEADP failed to apply its mind to the matter, resulting from an error of law. In addition it is stated that the decision was "irrational and grossly unreasonable, was taken for ulterior purpose, was arbitrary, actuated by bias and based upon irrelevant considerations and due to the dictates of another body or person" (Fin 24 2016:1). However, as a result of the CTSDf being rescinded as an urban structure plan by the DEADP in 2014, amendment of the urban edge (as part of the urban structure plan) was no longer required by the application and therefore no longer required the approval by the DEADP. To this end, Minister Bredell from the DEADP argued that any amendments were now the responsibility of the CoCT in terms of its Integrated Development Plan (IDP)²⁵. He argued that Eskom was thus shooting at the wrong target (Fin 24 2016). Mayor De Lille however, argues that the council understood its role as being one of making a recommendation as opposed to taking a decision, and therefore cannot be held accountable for such decision. To date no hearing has been scheduled for the matter (Fin 24 2016).

Cirolia (2014) notes a deep political concern regarding the dismissal of existing policies in the WescapE matter. "While public participation is often seen as an operational duty, avoiding participation and undermining policies, such as the CTSDf ... which have emerged out of deep and prolonged citizen engagement, is at its core a circumvention of a political process" (Cirolia 2014: 308). She suggests that the CoCT is thereby not only giving up on the administration and institutions of the City, but is also giving up on the public whose opinions and insights are seen as detriments to the political imaginary. The danger therein lies in the precedent set for undemocratic and contra-policy decisions in Cape Town.

²⁵ The CTSDf is one component of the municipal IDP. An amendment to the urban edge would therefore require an amendment to the IDP.

7.4.6 Critical Analysis

The Wescape application site is situated some distance away from the built-up footprint of CoCT, and is located within a 10km evacuation zone of the Koeberg Nuclear Power Station. The application site currently has no access to bulk services. The development proposal was argued by the applicant on the basis of housing need, and proposed an enormous amount of houses to be built, 25% of which would constitute subsidized/lower income housing. Based on the urban edge line, the development edges policy, and importantly the regulations of the Koeberg Nuclear Power Station, SPUD recommended to the Economic, Environment and Spatial Planning Portfolio Committee that the proposal not be supported. The factual basis for the recommendation by SPUD, coming from CoCT policy and regulations can be regarded as “rational”. The evidence of “housing need” brought by the applicant lacked scientific dearth and the Portfolio Committee in 2012 requested additional information to support these claims. The “housing need” argument brought by the applicant can therefore not be considered as “rational”.

Comments received from both external and internal stakeholders represents the pluralist/communicative action part of the decision-making process. Support for the application came from local and provincial housing authorities, eager to take advantage of the opportunity for provision of lower income housing. Objections were received from all other stakeholders, most notably ESKOM, the National Nuclear Regulator, local and provincial services departments and the Koeberg Nuclear Power Station. Objections were raised regarding the disproportionate number of households that would be located inside a 10km evacuation zone of the nuclear power station, as well as the enormous cost of servicing the application site that is located very remotely. The majority of comments received on the application reflects non-support for the proposal.

Support for the application was initially received by DEADP, whilst it was still a requirement to receive provincial approval for amendment to a local structure plan. In 2012 the Mayor (Patricia De Lille) rescinded the decision by the Economic, Environment and Spatial Planning Portfolio Committee that additional information is needed to support the applicant’s claim of “housing need” in the area. The Mayor thereby unequivocally provided support for the development proposal. No reasons are cited for the decision to rescind the request for additional information by the Economic, Environment and Spatial Planning Portfolio Committee. Again, one assumption can be that DEADP and the Mayor stood sympathetic toward the applicant’s ideals, and possibly saw the proposal as a visionary alternative to solving the city’s housing backlog. The disregard of CoCT policy again illustrate a mistrust of the CoCT’s own planning department and policies, and suggests qualified support for a neoliberal agenda.

The legal action brought against the DEADP in 2014 regarding their support for the proposal was deflected by the Minister of DEADP seeing that support for the proposal by the DEADP was no longer required. This placed the responsibility of support for the application firmly with the CoCT Mayor, Patricia De Lille. Given the approval of the Wescape development proposal, the lack of support coming from the CoCT portfolio committee, as opposed to the decision support coming from the DEADP and the rescindment of CoCT decisions by the Mayor, the locus of decision-making is with the Mayor as individual.

7.5 Case example: The urban edge and development edges policy

7.5.1 Problem

In 2001 the City's first urban edges were delineated and reflected in four geographically specific reports for Melkbosstrand, Helderberg, the Cape Peninsula and the Northern Metropolitan area. These reports were subsequently reinforced by an official development edges policy forming part of the SDF review that detailed the delineation criteria for the development edges (Sinclair-Smith 2014) as well as the principles that should guide the future management and applications for amendment of these edges (CoCT 2009). The development edges policy consisted of three delineated lines i.e. a green and a red line, as well as a coastal protection line. The green line represents a line to protect a valuable environmental asset and can never be amended, while the red line served as a growth management instrument to manage the piecemeal growth of the city onto new greenfield areas. The coastal protection line was specifically demarcated to protect the eroding coastline against urban development. In essence the objective of the development edges policy was to maintain a low density, semi-rural character outside the edge line in support of increasing building densities within the current urban footprint. It also intended to release land by amending the red line at times when the availability of land inside the delineated urban edge has become insufficient to accommodate new development or when infrastructure capacity becomes available (CoCT 2010).

The latest approved CTSDf (2017) does not include reference to an urban edge or the development edges policy. Instead, the spatial logic of this SDF centres on a comprehensive transit-oriented development (TOD) land use scenario. The basis for growth management in the city is through four primary spatial transformation areas namely (Figure 7.14):

- An urban inner core
 - Incremental growth and consolidation areas (areas where the City is committed to servicing existing communities and where new development will be subject to infrastructure capacity)
- Discouraged growth areas (areas located outside the former urban edge)
 - The City will not invest in discouraged growth areas, which include protected areas based on natural and agricultural assets, areas with a lack of social and physical infrastructure and areas that do not contribute to spatial transformation, inward growth or the premise of TOD
- Critical natural asset growth areas (areas located outside the former urban edge, including a number of protected natural environments and conservation areas outside the urban inner core or incremental growth areas)
 - Critical natural asset areas are areas that contribute significantly to the City's future resilience and/or have protection status in law

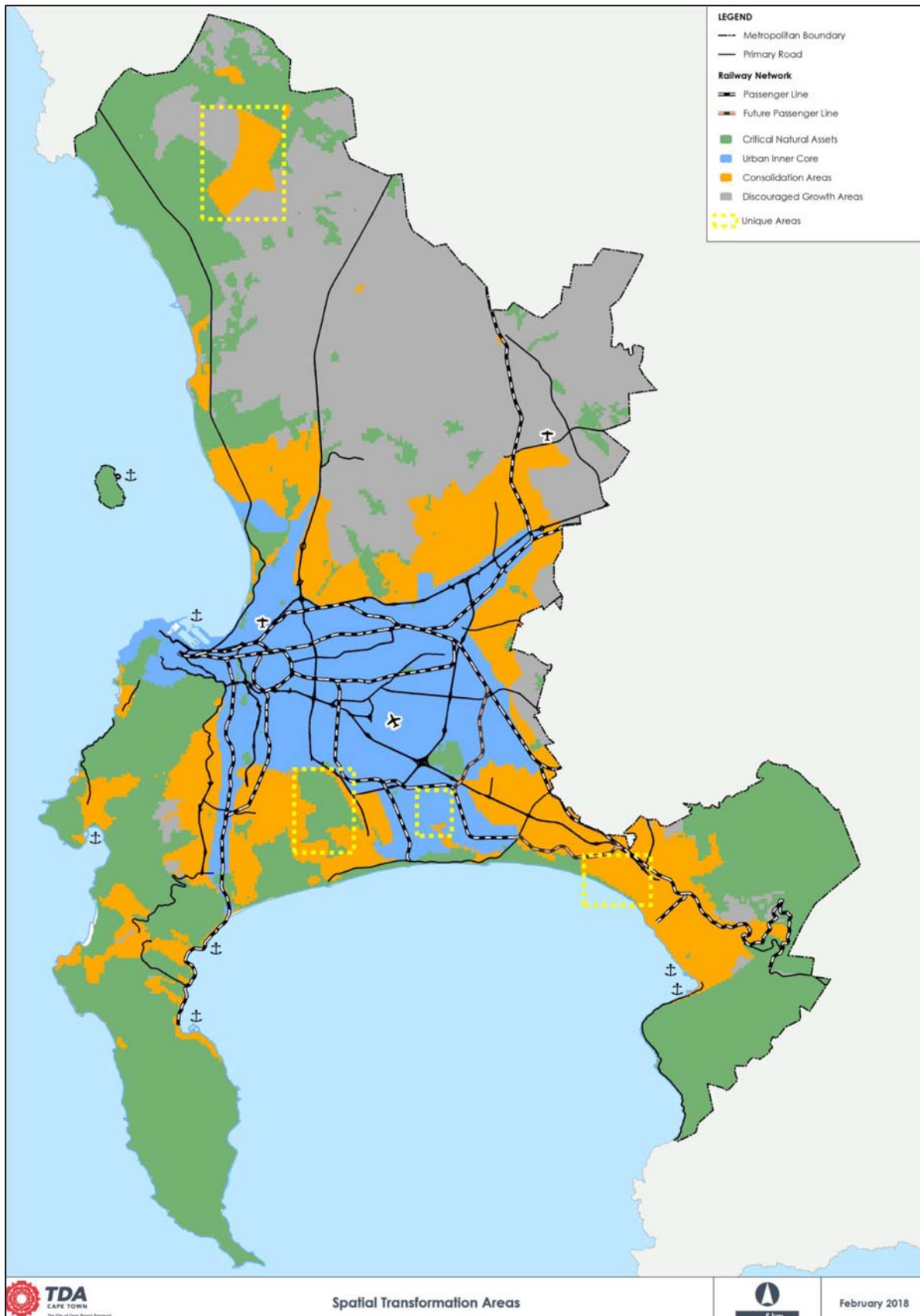


Figure 7.14: CoCT Growth management through spatial transformation (CoCT 2017: 61)

The following guidelines with regards to the approval of rights in the discouraged growth areas are included in the CTSDf (2017: 52):

- No development except that permitted in respect of existing agricultural or rural zoning.

- Should a decision-making authority grant rights, developers must comply with the following principles:
 - The public sector will not invest or utilise any grant funding in discouraged growth areas during the first 20 years of operation. The developer will carry all costs related to the provision of required services in these areas (both capital and operating costs).
 - The public sector will hold the developer to stringent requirements in order to minimize the risk of the developer defaulting on servicing responsibilities.
 - The developer needs to demonstrate how the development will contribute to spatial transformation within the development proposal.

The following guideline with regards to the approval of rights in the critical natural areas (including the PHA) are included in the CTSDF (2017: 53):

- Limited to tourism-related development, provided it does not compromise integrity of asset.

The CTSDF (2017) appears convinced that this approach to growth management offers a better chance of achieving inward growth (Figure 7.15) as illustrated by the following section of the CTSDF (2017: 4):

“The CTSDF 2012 prescribed ‘what’ and ‘where’ land uses could be supported through the use of spatial planning categories and a defined urban edge. This was due in part to the regulatory environment of the time. Long-term growth was projected along two northern-growth corridors ... the City has revisited and rescinded this spatial logic” .

In an economic environment where the developer holds considerable influence and the role of planning had become marginal, the effectiveness of the CTSDF becomes questionable. Despite a comprehensive spatial strategy for the municipality, the local authority who capital seeking land for profit, regardless of the larger spatial picture. The CTSDF fails to account for this trend manifesting in mega projects in Cape Town (Marks & Bezzoli 2001).

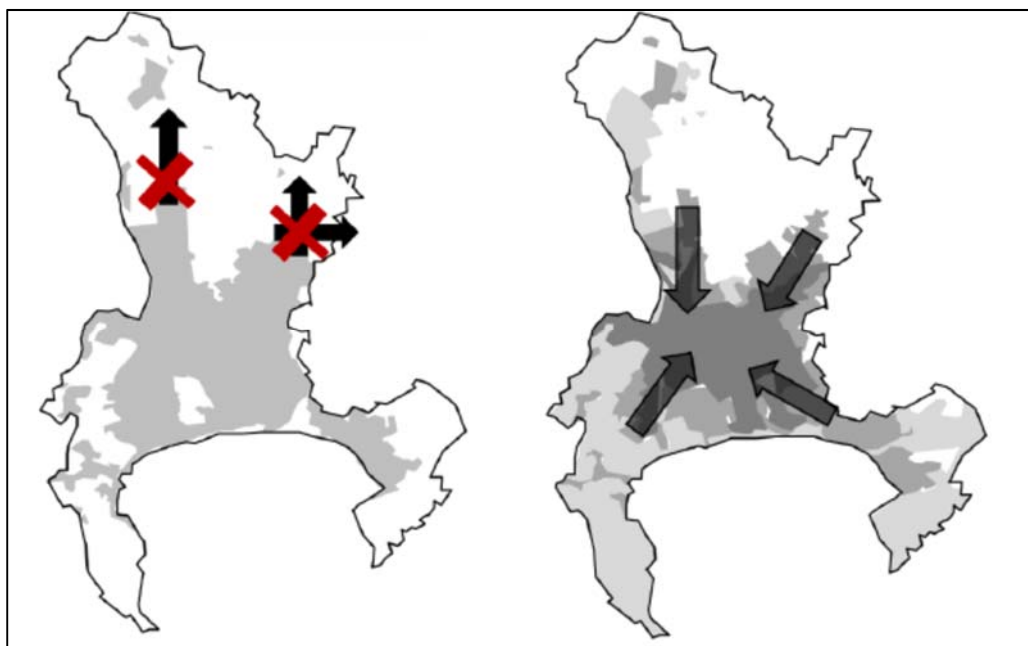


Figure 7.15: “2012 versus 2017 long-term spatial vision” (CoCT 2017: 4)

7.5.2 Process

The draft CTSDf (2017) was circulated for public and private comment prior to its approval. Table 7.4 reflects the comments received as they relate to the absence of the urban edge. Noteworthy is the only positive comment made by the Western Cape Provincial Department of Human Settlements on the removal of the urban edge, calling it “refreshing”.

Table 7.4: Urban edge-related comments on CTSDf (Compiled from CoCT 2017a)

Organisation/Individual	Comment
Fish Hoek Valley Ratepayers and Residents Association	The CoCT must keep the urban edge line in place to mitigate against loss of environmental resources (CoCT 2017a:77).
Young Urbanists	The absence of a cadastral-defined urban edge will leave the planning approval process open to manipulation and interpretation by many role players (CoCT 2017a: 79).
Western Cape Provincial Government – Department of Transport and Public Works	Urban edge in relation to the Wescap Development is problematic as a result of services availability (CoCT 2017a:80).
Anonymous ratepayer	The urban edge (particularly in the PHA) must be retained to guard against loss of valuable horticultural resources (CoCT 2017a:81).
One Web of Life	The absence of the urban edge is a threat to the conservation of environmental and agricultural resources in the City (CoCT 2017a: 82).
PHA campaign	The CTSDf is irresponsible in removing the urban edge as a tool that is supposed to protect the environmental and agricultural resources of the City (CoCT 2017a:83).
Joostenbergvlake Community Forum	There was no public participation process to determine whether the urban edge should be removed (CoCT 2017a: 85).
TRUP	CoCT is irresponsible with regards to food security and environmental conservation in removing the urban edge (CoCT 2017a:86).
NM and Associates Planners and Designers	Removal of the urban edge can lead to urban sprawl and manipulation of the MSDf vision of integrated, transport-oriented development (CoCT 2017a: 88).
Barbarossa Resident’s Group	Why is the urban edge removed if sufficient land is available for urban development inside the edge? (CoCT 2017a: 89)
SANPARKS (Table Mountain National Park)	In the absence of the urban edge, the CoCT will be limited in its capacity to protect natural resources (CoCT 2017a: 90).
ESKOM Holdings SOC	The absence of the urban edge is dangerous with regards to the expectation of service delivery to perspective developers. ESKOM needs to know where the city is growing and where and when development will be supported, in order to plan ahead (CoCT 2017a: 91).
Future Cape Town	The removal of the urban edge tool from the SDF is contradictory to the CoCT vision to achieve the spatial transformation of the City through TOD and associated densification and diversification of land uses (CoCT 2017a: 93).
Anonymous comment	In the absence of an urban edge, the CoCT will be unable to protect natural and coastal resources (CoCT 2017a: 98).
PHA Food and Farming Campaign	The urban edge around the PHA must remain (CoCT 2017a: 101).
Wynberg Residents’ and Ratepayers’ Association	It is illogical to talk about removing an urban edge at the same time as promoting compact cities and densification.

Organisation/Individual	Comment
	The SDF should clearly define the urban edge as a non-negotiable permanent edge (CoCT 2017a: 103).
Development Action Group (DAG)	The removal of the urban edge does not support the vision put forward by the SDF i.e. a compact transport-oriented city (CoCT 2017a: 104).
South African Association of Consulting Professional Planners (SACPLAN)	The absence of an urban edge will complicate the assessment of development applications in areas previously outside the urban edge (CoCT 2017a: 107).
Durbanville Community Forum	The removal of the urban edge is contradictory to the SDF’s vision of achieving compact urban development (CoCT 2017a: 110).
Forum of Cape Flats Civics	The urban edge around the PHA must be retained (CoCT 2017a: 112).
CoCT Transport and Development Authority	Will the urban edge still be applied at lower level planning i.e. district/local level planning? (CoCT 2017a: 113)
CoCT Environmental Management Department	The removal of the urban edge compromises the CoCT’s ability to protect critical biodiversity areas against urban development (CoCT 2017a: 120).
Western Cape Provincial Department of Human Settlements	The removal of the urban edge is a refreshing idea (CoCT 2017a: 124).
CNdV Africa	The removal of the urban edge will send confusing messages and it is likely to contribute to urban sprawl (CoCT 2017a: 125).
Twelve handwritten comments from CoCT residents	Objects to removal of the urban edge (CoCT 2017a: 126-130).

In summary the following themes of objections are noted: Firstly, the major lobby for maintaining the urban edge is the protection of the City’s agricultural, coastal and biodiversity areas, including the PHA. Secondly, the removal of the urban edge will complicate decision-making regarding proposals outside the urban edge, and possibly leave the process open to manipulation and undue influence. Thirdly, the removal of the urban edge contradicts the idea of creating an integrated, compact, transport-oriented city. Fourthly, removal of the urban edge is irresponsible with regards to future planning for infrastructure capacity.

7.5.3 Policy

Table 7.5 denotes the pertinent challenges pertaining to the urban edge and development edges policy as experienced from the perspectives of both applicants (developers, private town planning consultants and public housing authorities) and authorities (CoCT SPUD, Western Cape Provincial DEADP):

Table 7.5: Comments on Development Edges Policy

	Name	Challenge
Applicant	PC Pers Com 1	<ul style="list-style-type: none"> The initial delineation of the urban edge was unscientific and unprofessional and therefore the urban edge is regarded as an arbitrary line used by the CoCT to limit urban development. The supporting information in the CTSDf (i.e. regarding agricultural potential and biodiversity) is unreliable as assumptions about these aspects are made on a city-wide level and not disaggregated to reflect conditions on the ground. Land inside the urban edge is too slow to be released to facilitate effective development inside the urban edge. Spatial planning must be much more flexible to accommodate rapidly changing urban conditions.
	PC Pers Com 2	<ul style="list-style-type: none"> The process of delineating the urban edge line is contested. It is regarded as an opinion-based line that has been made a statutory line.

Name	Challenge
	<ul style="list-style-type: none"> • The perception is that if a developer is politically well connected to the CoCT, his chances of success of obtaining approval for an amendment to the urban edge is better. There's a lot of lobbying for urban development outside the urban edge that takes place behind closed doors. • The urban edge can be a positive tool, but it needs to be open for discussion. At the moment there's too much emotional investment.
PC Pers Com 3	<ul style="list-style-type: none"> • The urban edge was useful as an initial tool to "draw a line in the sand" but it had unintended consequences such as the inflation of land prices. • Land outside the urban edge is less constrained and constitutes an easier delivery model for government-assisted housing. • Politicians at CoCT often disregard the urban edge and property developers have a lot of influence with politicians regarding amendment of the urban edge. • The urban edge lost credibility with the approval of amendments such as Schaapkraal and Wescape. • Redevelopment of land inside the urban edge is constrained by the slow release of land and limited infrastructure capacity.
PC Pers Com 4	<ul style="list-style-type: none"> • The urban edge as a tool to force densification cannot work in a developing world context where people cannot afford to/culturally don't want to live in higher density apartments. • Brownfield development of small patches of land inside the urban edge is ineffective in addressing the housing backlog at scale. The infrastructure and network capacity inside the urban edge are also too limited to allow for this level of redevelopment. • The National housing subsidy does not allow for development of well-located land for public housing. • The urban edge and Development Edges Policy lacks future vision. • CoCT politicians and the CoCT Mayor are much more pro-development and pro-growth than the CoCT officials. The Mayor has openly stated her disregard for the urban edge.
PC Pers Com 5	<ul style="list-style-type: none"> • The delineation of the urban edge line was unrealistic in terms of population growth and immigration. • The urban edge as a tool to limit development cannot work in a developing world context in desperate need for financial investment • The urban edge is supposed to be a guideline only but it's being applied as legislation. • The CoCT is unrealistic with regards to redevelopment inside the urban edge. Land is constrained and urban services are at capacity.
CoCT Pers Com 1	<ul style="list-style-type: none"> • This department must also apply for amendment to the urban edge if they want to develop public housing outside the urban edge. • The department is, however, constrained in its ability to purchase expensive land inside the urban edge, therefore they prefer buying property at the periphery at reduced rates. Intensification and retrofitting of development inside the urban edge is expensive. The CoCT must either abandon the idea of densification or make money available to do it. • Urbanisation and informality are processes that are currently shaping the form of the city as these processes are not bound by formal town planning regulations such as the urban edge. These sectors therefore have the competitive advantage while the formal housing market is tied up in regulations. • Mr Kuhn supports projects such as the housing proposals made in Schaapkraal and Wescape since these projects at least start addressing some of the City's housing backlog. Big schemes like these were what

	Name	Challenge
		<p>saved the City historically (referring to massive housing schemes undertaken in Atlantis and Mitchells Plain).</p> <ul style="list-style-type: none"> • The National housing subsidy is not smart in terms of planning for things like well-located land for public housing and the potential savings on transportation subsidies.
	WC Pers Com 1	<ul style="list-style-type: none"> • Land outside the urban edge is usually less constrained for public housing development than land inside the urban edge. • A fixed urban edge is not a useful tool in housing delivery. There must be openness to influence the thinking by spatial planners in terms of where and when the city is moving.
	WCPDF Pers Com	<ul style="list-style-type: none"> • Tools such as the urban edge shows the CoCT’s inability to meaningfully engage with the private sector in terms of development. • The urban edge gave spatial planning a very negative image. It is not a pragmatic tool, but an agenda driven tool. • Decision-making with regards to the urban edge needs to be much more dimensional; market forces should be allowed to start addressing the issue of housing development. • It is unclear what is informing the urban edge agenda since it cannot be population and migration figures. • The urban edge resulted in the tripling of land prices on the inside of the edge line. • The initial delineation of the urban edge was unscientific and not supported by the necessary facts. • Land inside the urban edge are constrained for urban development.
Approval	CoCT Pers Com 2	<ul style="list-style-type: none"> • The political sentiment in Cape Town seems to be pro-development/developer, even though some development proposals may have negative implications. The style of growth management have changed from curbing to promoting. The political argument is that any tool (such as the urban edge) that says “no” to development doesn’t work in a capitalistic environment. • In addition to private development, a big challenge to the urban edge is National Department of Human Settlements’ one unit, one family policy. • The urban edge is currently being used as a negotiation tool, but the negotiation takes place between politicians and developers (public and private); CoCT planners are not part of the discussion. • The land audit undertaken by the CoCT in 2016 revealed that enough land is available inside the urban edge to accommodate future growth, however, the land is very slow to be released, and many of it should be purchased by the CoCT Department of Human Settlements. • Approvals of Schaapkraal and Wescape resulted in the urban edge losing credibility. • It should be noted that the urban edge is also used as a risk management tool (e.g. coastal flooding, agricultural and biodiversity conservation etc.) and should be used as such to mitigate against potential risks.
	WC Pers Com 2	<ul style="list-style-type: none"> • The urban edge is in place to protect the planning process against political interference. It is a tool to protect the City from sprawl, and facilitate good urban functions like public transportation, integration, protection of agricultural and biodiversity resources and mitigate against environmental risks. • The urban edge obtained a very negative image with local authorities using it as a scapegoat to refuse development. Municipal planners use the policy as if it were legislation. The (RSA) Constitution, however, states that the decision maker must always have the option to interpret a situation on merit.

In summary, the following themes are identified within the challenges pertaining to the urban edge: Firstly, the delineation of the initial urban edge line is contested and there is a perception that the foundation of edge line delineation is unsubstantiated by scientific rigour. Secondly, the urban edge as a tool to achieve densification (and limit urban development) is considered inappropriate in a developing world context. Thirdly, densification and redevelopment of land inside the urban edge is constrained by high land prices, the slow release of public and private land, and limited infrastructure capacity. Fourthly, government-assisted housing is near impossible to be delivered inside the urban edge as a result of the limitations of the national housing subsidy, still premised on the idea of a single dwelling for a single family on a single stand. Fifthly, the urban edge as a policy instrument is too rigidly applied and does not allow for flexibility or interpretation. Lastly, the urban edge has lost credibility as a result of large-scale amendments in Philippi and Wescape, and as a result of it being particularly open to political bargaining and interfering. There is a general sense that the urban edge lacks political support and that the political climate is much more in favour of developer-led planning.

7.5.4 Programme

The absence of an urban edge and reference to the Development Edges Policy in the CTSDP (2018) suggest that the policy has been terminated. Table 7.6 indicates the amendments to the urban edge that were approved by the CoCT prior to its termination (CoCT 2017b).

Table 7.6: Amendments to the urban edge line since 2001 (refer to Figure 6.6)

Year	Property Description
2011	SE corner of PHA. Erven 579-582, 587-591, 637-641, 652-654, 657-658, Rem erven 651, and Ptn of Rem 648, 650 Schaapkraal Rapicorp.
2011	Garden Cities: 7, 8 15,19 Farm 168 Joosentenberg Vlake and Ptns 3 & 4 Paarl Farm 724
2012	Erf 5541 Eersterivier
2013	Rem farm 1511 Baronetcy Estate, Parow
2013	Ptn of erf 39170 D'Aria (refers to approx 4.4 ha to be subdivided off)
2013	38 erven in SW corner of PHA: 539, 541-545, 554-558, 572, 574,575, 578, 605-607, 609-617, 622,626, 628, 630, 632, 634, 662, 664, 1932 and 1933 Philippi / Schaapkraal (one application) MSP
2014	Wescape
2014	Ptns 18 Farm Uitkamp 189, Vissershok rd, Durbanville
2014	Rem Cape Farm Lichteberg 175, Ptn 1 of Farm Lichtenburg 175, Rem Farm 123 Eikenhof, Rem of ptn 1 of Cape Farm Louwenhof 123 (Farmika), Rem ptn 2 of Cape Farm 123, Cape Farm 1446 (Bella Riva)
2014	Ptn 15 of Stellenbosch Farm 653, Faure (Vergenoegd)
2014	Erf 182 Skaapkraal
2014	Erf 5144 Ocean View
2015	10905 Tokai
2016	Amendment to SPC: From Rural to Urban Development. Amendment of the Urban Edge
2016	The Remainder of Portion 7 of Farm 664, Zandvliet, Main Road, Firgrove
2017	Remainder Stellenbosch farms 839,843,862, 1052, 1100 and 1369 (proposed Casa Maris Eco-Estate)

7.5.5 Political

In Cape Town the Democratic Alliance (DA), following African National Congress (ANC) rule from 2002 to 2006, was elected during the local government elections in 2006 and has been the ruling party to date. Political rivalry between tiers of government (the ANC being the National ruling party) has, however, limited their capacity to take a strategic view in Cape Town (Turok & Watson 2001). The neoliberalist approach to governance at a local level (McDonald & Smith 2004) has always had to be balanced by national development imperatives of social equity and justice (National Planning Commission 2012). At a local political level, the City elected a new mayor, Patricia De Lille, in 2011 and the research revealed the suggestion of a pro-growth developer-friendly political administration. Officials from SPUD revealed the local political climate that views “any new development as good development”, regardless of whether concerns are raised about potential for negative consequences, the biggest challenge facing the urban edge policy.

One of the most cited challenges to the CoCT urban edge is the political interference in enforcing the policy. Ironically, an official from the DEADP stated that the department views the urban edge as a tool to protect the planning and development process against political agendas (WC Pers Com 2). Findings from comments and personal interviews suggest that the way in which the urban edge is amended is inconsistent, referring to influential development groups unduly influencing mayoral decisions. The Mayor is perceived to be much more “growth-oriented” than planning officials are and she portrays the city as investor-friendly to the point where she has openly stated her non-support of the urban edge (De Lille 2013a). Before its termination, the urban edge seems to have been applied as a negotiation tool between politicians and property developers for development rights without input from CoCT officials.

7.5.6 Critical Analysis

The urban edge line formed part of the CoCTs spatial strategy since 2001. However, the most recently approved CTSDF does not include an urban edge line nor reference to the development edges policy. Prior to the termination of the urban edge and development edges policy, conflicting viewpoints existed among public and private stakeholders regarding the use of the urban edge as a containment instrument. Five private planning practitioners were consulted regarding their viewpoints on the urban edge. The majority of these practitioners viewed the use of such instrument as inappropriate and unrealistic in a developing world context, characterized by urbanisation and massive population growth. This was regarded as specifically problematic in Cape Town given its existing and growing housing backlog. The use of the edge was cited as further problematized by the rigor with which it is implemented by CoCT planning officials. Noteworthy was the observation by all the private practitioners that the urban edge is subject to political influence, i.e., being connected with politicians, specifically the Mayor, means a greater likelihood of having a development proposal outside the urban edge supported. Both provincial and local departments of human settlements considered the urban edge to be an obstacle in achieving their mandates of delivering lower income subsidies housing, since land outside the urban edge are generally less restrained, more affordable, and yields the biggest margin for achieving large-scale public housing. SPUD experienced the political climate in CoCT as apprehensive and non-supportive of the urban edge line and development edges policy. Officials from SPUD however remained convinced of the importance of the urban edge to achieve densification and mitigate against environmental degradation. The provincial DEADP indicated qualified support for an urban edge, but did however cite it as problematic that local authorities were inflexible in their application of the urban

edge as policy instrument. The suggestion was that local authorities must always consider the merit of a development proposal, even though it might be contrary to policy.

The viewpoints from the different stakeholders represents a balance of rational arguments. Whilst the private practitioners and human settlements officials argue on the side of an economic rationale, officials from SPUD maintains an environmental and social rationale for keeping the urban edge in place. Public advertisement of the 2017 CTSDF revealed the following objections to the urban edge being removed. Firstly, the major lobby for maintaining the urban edge is the protection of the city's agricultural, coastal and biodiversity areas, including the PHA. Secondly, the removal of the urban edge will complicate decision-making regarding proposals outside the urban edge, and possibly leave the process open to manipulation and undue influence. Thirdly, the removal of the urban edge contradicts the idea of creating an integrated, compact, transport-oriented city. Fourthly, removal of the urban edge is irresponsible with regards to future planning for infrastructure capacity. A positive comment was received from the provincial department of human settlements, noting the termination of the urban edge line as 'refreshing'. The overwhelming sentiment from public input received reflects non-support for termination of the urban edge. Despite the public consultation process undertaken and comments received, the CTSDF was approved in 2017 without an urban edge.

Consultation with different role players revealed the perception that the Mayor of CoCT is much more growth-oriented than planning officials and is perceived as creating an investor-friendly city at all cost. The Mayor, Patricia De Lille has openly stated her non-support of the urban edge and development edges policy even before its termination in 2017. The consistent political support for development proposals contravening the urban edge line were cited by all parties as discrediting the policy instrument.

The prevalence of state capture requires the following to be evident (Carpenter and Moss 2014):

- A clear forfeiture of public interest
- A policy shift away from public interest and toward industry/special interest
- Intent by the industry in pursuit of this policy shift sufficiently effective to have caused an appreciable part of the shift

A clear and consistent stance against CoCT urban edge policy (assumed in the public interest), consistent poorly motivated political support for development proposals contravening the urban edge and development edges policy, as well as the ultimate termination of the urban edge in favour of supporting private-sector projects outside the urban edge supports evidence of a regulatory capture by the neoliberal state in CoCT.

7.6 Conclusion

A common reason for the failure of land-use controls, especially in the developing world, is inadequate political support for and championship of such controls (Carter 1976; Devas 1993; Fekade 2000). Cities in the global south often experience strong pressure for growth at the urban periphery in the form of both informal and high income residential housing, and in this context an urban edge may be detrimental to the city's financial viability and economic growth (Harrison & Todes 2015). The purpose of this chapter was to determine the drivers of spatial planning decision-making in CoCT, as these decisions ultimately resulted in the termination of the urban edge line and development edges policy. Two large urban edge amendments (PHA and Wescap) as well as the decision to terminate the urban

edge was evaluated by using the adapted streams model of decision-making analysis. This model evaluates the problem, process, policy, programme and politics in each decision thereby allowing critical analysis of each component of a specific decision.

This case is reminiscent of the Century City development in Cape Town (Marks & Bezzoli 2001) during which the role of private capital in urban development heavily influenced spatial policy decision-making. The analysis by Marks and Bezzoli (2001: 31) stated that “in this development, the role of local authority planners had become increasingly privatised”. Two different sets of rules governed the planning process: “on the one hand there are planners who act as agents of state bureaucracies claiming to act in the public interest, and on the other hand there are agents of private capital, responsible for the bottom line of profitability” (ibid: 32). The same article noted the constant flow of professionals gaining experience in the public sector, then moving into private sector where they can exert greater influence. Property developers have already developed an analogous planning system, whereby they employ their own experts (independent information) to navigate and manipulate the bureaucratic maize (Marks & Bezzoli 2001). It was within the contradiction between public rhetoric, and to some degree policy, promoting spatial integration, urban equity and accessibility, and the reality of market forces that Century City has been able to develop. The authors conclude that at the end of the day the role of planners had been reduced to exigencies of rezoning.

The problem identified in each of the urban edge decisions evaluated in this chapter primarily related to the conflicting viewpoints between different roleplayers regarding the rationale for the urban edge line. Public stakeholders and residents ratepayers associations expressed strong support for the urban edge as an instrument to ensure the protection of valuable natural resources. Support for the urban edge is also given by CoCT departments of Spatial Planning and Urban Design, Environmental Resource Management and various services infrastructure departments mainly as a result of the urban edge allowing for planned, carefully managed future urban expansion. Conversely, opposition to the urban edge is expressed by the private sector, both planners and developers, claiming the urban edge to be delineated on incorrect information, and also its restrictive nature prohibiting the development of housing stock that can contribute to the city’s housing backlog. This sentiment is shared by the city’s and provincial departments of Human Settlements.

The process of decision-making, as prescribed by the LUPO (1986) and later SPLUMA (2013) prescribed that a local authority can make decisions to amend its structure plan (LUPO) or SDF (SPLUMA) if the comments of external and internal stakeholders have been considered and if the decision is in line with the objectives for land development put forward by national legislation. In other words, the process theoretically assumes a rational decision-making process i.e. a decision based on nationally prescribed principles for land development. However, the same process rests the final decisions in the realm of the highest ranking political decision-making authority at local authority level, in this instance, the Mayor as individual. Assuming therefore that, such is the case in CoCT, the neoliberal representation has strong support from the Mayor, and is thereby able to sway many policy decisions in favour of a neoliberal agenda, such decision-making process or structure runs the risk of falling prey to elitist decisions, or even a regulatory capture by the neoliberal stake. In support of this argument Battersby (2016) notes that the CoCT seemed to have employed a casuistic (incremental) approach to addressing land use decision-making, where general decisions on over-arching conflict are avoided and decisions are made on a case-by-case-basis. Despite the set of principles in place on which basis the evaluation of applications to amend the urban edge should be based, the CoCT employ case-by-case assessments, giving the voice of the land developer and the promised economic benefits of the development greater

prominence in the weighing of decision-making. This has to do with the scale at which different discourses have power. At the city-wide scale, the arguments relating to the benefits of increasing residential densities, and protecting critical biodiversity areas have merit as it supports the public good. However, at the individual application scale, it is easier to argue for specific, hard numbers of economic benefit and number of housing units provided. This casuistic approach resulted in an incremental path of supporting development proposals outside the delineated urban edge, which ultimately ended in the termination of the urban edge line and policy. From a political perspective, a fair conclusion appears that the neoliberal, pro-development argument in the CoCT have managed to supersede all other arguments in spatial planning decision-making around the urban edge.

CHAPTER 8: CONCLUSION – THE DARK SIDE OF “MUDDLING THROUGH”²⁶

“I have a dream, a song to sing. To help me cope with anything.

If you see the wonder of a fairytale, you can take the future, even if you fail.” (ABBA)

8.1 Introduction

The City of Cape Town (CoCT) has since the 1990s employed a development edges policy as a growth management instrument in its spatial development framework (SDF) (CoCT 2009). However, in the most recent Cape Town Spatial Development Framework (CTSDF) of 2017 they no longer make use of an urban edge line or policy as an instrument to contain horizontal urban growth. This sees a considerable turn-around from the stated historic apprehension to persistent growth pressure to the northern and eastern urban extremities of the metropolitan area (CoCT 2012) by using an urban edge, and seems to suggest that the former urban edge policy was considered inappropriate or problematic to the city’s objectives for spatial development in the latest SDF. Reasons for the termination of this policy-approach formed the basis of this research in which, firstly, the spatial outcomes of the urban edge line and policy in Cape Town since 2001 were evaluated; and secondly, the decision-making processes associated with urban development proposals contravening the urban edge line and leading to the ultimate termination of the urban edge policy instrument were analysed. The following chapter denotes a synopsis of the foregoing chapters, a synthesis of its main findings, as well as personal reflections and scholarly contribution of the research.

8.2 Synopsis

The main aim of the study, as listed in Chapter 1 was to determine the driving forces of spatial policy decision-making in Cape Town. This was achieved by means of the following objectives:

- Investigating institutional theories relating to public policy and decision-making, as well as theories of urban growth management;
- Measuring urban sprawl in Cape Town;
- As a non-empirical meta-analytical question determining what the current state of the CoCT urban edge line and development edges policy are and whether it has had a notable impact on the physical pattern of land development in Cape Town;
- Investigating how decision-making was done historically regarding land use applications that contravene the CoCT urban edge line and development edges policy and whether it was taken into consideration during decision-making;
- Questioning what contributed to the termination of the CoCT urban edge line and development edges policy; and
- As a non-empirical normative question, explore what drives spatial policy decision-making in CoCT.

Chapter 2 explored the history of the urban growth management discourse, as well as theories on decision-making, power and politics that can be used in explaining decision-making trends in spatial planning practices. Attempts at limiting urban sprawl can be traced back to the early industrial city and the Garden City movement, during which time planned decentralization was considered a solution to the poor living conditions of urban areas. Garden cities were however restricted in terms of size by using greenbelts, and so the discourse of managing urban expansion began. The urban growth management

²⁶ After Wilson 2011

discourse served as a worthy partner to the compact city discourse, which, by using USBs, UGBs and smart growth supported the notion of achieving denser urban environments. Urban growth management mechanisms have been widely implemented in the global north. The main challenge associated with state growth management programmes is associated with the limited capacity of government to enforce urban growth management mechanisms. Growth management programmes are highly influenced by private development interests that receive support from political decision-makers.

The complex relationship between neoliberalism and a dispersed urban form has been recognised (Filion & Kramer 2011). On the one hand, an effort to maintain middle-class consumption standards (often associated with dispersed urban development) creates support for a neoliberally oriented development agenda. On the other hand, the high infrastructure and transportation costs associated with this form of development places strain on local government finances, retracting some of the enthusiasm for neoliberal urban development (Cervero 2003).

Research in Toronto has demonstrated the negative effect of neoliberalism on metropolitan-wide urban planning initiatives. In the Toronto research, three possible outcomes of neoliberalism on planning policy is identified: The first outcome is planning policy that arise within shifting political and economic processes, or so-called hybrid planning policies, where some objectives support neoliberalism and others are less sympathetic to the free market. The second form of policy outcome is the complete overtaking of planning by neoliberalism. In this outcome planning becomes subservient to short-term market tendencies, and its role is purely the support and stimulation of prevailing market trends. The last possible outcome is plans and policies that promote ambitious transformative visions and ideological planning principles such as public transport orientation and urban recentralisation. In reality however these proposals clash with neoliberal perspectives, and in addition the state is ill capacitate to implement such visions without the support of the market (Fillian & Kramer 2011).

Politicians are often unaware of the consequences of following or not following a certain plan. This strongly relates to what Foucault (as quoted in Dreyfus and Rabinow, 1982: 187) refers to as “people knowing what they do, they frequently know why they do what they do, but what they don’t know is what what they do does”. Solutions that are often justified as innovative to contemporary urban problems have been exposed as displacing, alienating and marginalizing (Miraftab 2012). Therefore as a starting point power relations must be built into the conceptual framework of planning (Friedmann 1992; Sager 1994) and must be considered in a specific context, place, time and scale, regarding specific issues and particular combinations of actors. Research by Flyvberg (1998) demonstrated the ability of raw power to be more effective in decision-making than rationality. Public planning will be able to resist the neo-liberal attack better if it can convey the message that broadly based and justifiable collective decisions are generally more important than efficient decision-making in the economic sense (Sager 2011).

The final part of Chapter 2 considered different approaches to decision-making. The theories of rational, incremental, garbage-can, mixed scanning and pluralist decision-making was explored. In addition theories of communicative action, elite theory and regulatory capture was discussed in terms of the objectives of each approach as well as its main locus of decision-making power. The pro-economic development lobby is characterized by pluralism in its diversity and increasing fragmentation but still seeks alliance amongst one another and from local government (Allmendinger 2002). In elite theory and the theory of regulatory capture it is clear that the power to make a decisions lies with a known/unknown powerful elite, usually represented by a strong business or economic interest. Regulatory capture is the result or process by which regulation is consistently or repeatedly directed away from the public interest and toward the interests of the regulated industry, by the intent and

action of the industry itself. Weak capture, by contrast, occurs when special interest influence compromises the capacity of regulation to enhance the public interest, but the public is still being served by regulation, relative to the baseline of no regulation. In other words, weak capture prevails when the “net social benefits of regulation are diminished as a result of special interest influence, but remain positive overall” (Carpenter & Moss 2014: 88).

The chapter concludes that urban growth management is highly volatile to political and market influences, as economic realities drive many political decisions. Since spatial planning is a highly political practice, policies and programmes implemented by planners will be subject to these influences. Land use decisions that need to be taken as a result of restrictions on urban growth (through the implementation of urban growth management mechanisms) are the subjects of much political and economic interest interference.

Chapter 3 described the research methodology that consisted of both historical and evaluation research to assist in analysing the outcomes and decisions taken on the urban edge policy in the CoCT. The research makes use of a mixed methodology, combining both historical narrative analysis and evaluation research. From a **historical perspective**, the global and local urban growth management discourse trajectory were traced through archival sources as well as personal discussions with professionals involved in the CTSDf since 1990, in order to establish its original institutional trajectory in the CoCT that found expression in the urban edge line and development edges policy.

In order to determine the spatial effectiveness of the urban edge policy in Cape Town, an urban sprawl index (USI) was calculated by assuming a hypothetical black and white determination approach, i.e. if the built-up growth rate exceeds the population growth rate, there is an incidence of sprawl. A further analysis was undertaken to reveal the extent, location and proposed land uses of urban land included in the urban edge line as a result of urban edge line amendments following the original urban edge of 2001.

The streams model of policy analysis (Kingdon 1984) was used in analysing CoCT urban edge decision-making. By considering each stream separately (problem, policy, programme, process and politics), the viewpoints from each separate stream were analysed independently and linkages and convergences that lead to the most prominent policy decisions, illuminated by the narrative analysis were observed.

Critical junctures (gradual urban edge line concessions) that eventually lead to the ultimate termination of the CoCT urban edge line and development edges policy were explored. **Termination** refers to the adjustment of policies and programs that have become dysfunctional, redundant, outmoded and unnecessary. When a policy’s objectives are reached and maintained, its relevance and applicability should be reconsidered, and if found redundant, it should be terminated (Geva-May 2004). The underlying assumption put forward by the same author is that termination of policy occur in decision windows that open and close as political, policy and problem streams converge. **Policy dismantling** is a related concept that focuses on policy decisions to reduce public generosity, or to water down the rigidity of regulatory policies, for example environmental policy (Schmitt 2015), or in this instance, the gradual erosion of the urban edge policy because of multiple urban edge line concessions.

There are disagreements among social scientists as to what the main causes of behaviour in policy decision-making are. John (2012: 41) describes a number of political science approaches that can help explain the causes and factors influencing policy decision-making. Rigorous analysis of the Cape Town urban edge policy, as described in the methodology, demonstrated how these four ‘approaches’ or ‘explanations’ explain the termination of the policy:

1. Institutional approaches: political organisations, legal systems and bureaucracies structure public decisions and policy outcomes;
2. Groups and network approaches: associations and informal relationships, both within and outside political institutions, shape decisions and outcomes;
3. Exogenous approaches: factors external to the political system determine the decisions of public actors and affect policy outputs and outcomes; and
4. Rational actor approaches: the preferences and bargaining of actors explain decisions and outcomes.

Following the results of the narrative and the evaluation research components, the study identified the factors that intended to guide decision-making regarding the urban edge line and policy, and secondly identified the factors, role-players and processes that actually guided decision-making in Schaapkraal, Wescape and the termination of the Cape Town urban edge line and policy.

Chapter 4 delivered an overview of urban growth management approaches and outcomes in cities of the global south. Approaches to managing urban growth vary distinctly across different cities in the south. In view of rapid urbanisation experienced in all these countries, as well as the peri-urban manifestation of such urbanisation attempts to control and manage urban growth are commonly found. Most popular among southern cities is the establishment of new/satellite towns to alleviate density and pressure from inner areas. Other approaches to manage urban growth are government acquisition of land, land regularisation through zoning and land use controls, agricultural substitution schemes and public investment in mass transit systems. Despite these state attempts to manage urban growth and urbanisation, success in slowing the growth of urban areas and containing urban sprawl have been marginal, mainly as a result of the overwhelming population growth in southern cities. A significant rise of neoliberal planning have been present in cities of the global south since the early 2000s (Robinson & Parnell 2012). According to Carmody and Owusu (2016) neoliberalism has significantly curtailed the role of the state in Africa, and along some dimensions, incapacitated and weakened the planner's toolkit for dealing with the problems of African cities. In addition, the focus of urban planners across Africa seems to have shifted from making the city a decent place to live for its residents to a place of elite consumption and production, the benefits of which are meant to trickle down. Cities in the global south lack the rigid urban form common in the western world and instead are characterised by flexible informality that requires adaptive planning techniques, not grand plans (Abubakar & Doan 2017). The roles of public officials are more analytic, political and managerial than technical – these officials need to understand the motivation of and relationship between actors, negotiate between them and decide where action is required. In this way public officials could bridge the divide between political objectives and effect change to the benefit of the poor or the majority. This new convention is, however, questioned in a developing world context. It is claimed that a negotiated bottom-up participatory style may be appropriate in a western context of pluralist democracy, but perhaps less so in a context of elite dominance, popular exclusion from policy formation and political vulnerability of public officials.

Growth management programmes are thwarted for political reasons because of the power bases which arise from the economic and social value of land. The increasingly important role of the neoliberal agenda in strengthening ill-capacitated developing local governments has demonstrated a vast increase in the political bargaining power the private sector holds over policy decision-making. In many instances, private-sector driven development proposals represents high-income projects favouring middle to higher income interests. By far the most cited reason for failure of growth management instruments in the global south, was failure to enforce such policy by local politicians. A number of cities in the south

(such as Sao Paolo, Curitiba and Hong Kong) attribute the success of their growth management instruments to a willing and capacitated political structure. Noteworthy in many of the southern cities that were discussed was the instrumental role that individual Mayors played in spatial policy decision-making.

Chapter 5 delved into the historical analysis of urban growth management in South Africa. Initial attempts at growth management was born from the European-inspired compact city ideology. More recent national policy and legislation, such as the National Development Plan (2012) and the Spatial Planning and Land Use Management Act (SPLUMA)(2013), are much less explicit about the principles of compact cities and place more emphasis on a general spatial transformation agenda. However urban growth management measures such as increasing densification, focusing investment around public transport infrastructure and urban edges, continue to be important elements of all the SDFs of metropolitan municipalities.

One of the most notable features of the post-apartheid political landscape in South Africa has been the rise of neo-liberal thought and policy making. Following the introduction of programmes such as GEAR and ASGISA an increased recognition of the private sector as key role player in facilitating urban transformation has been observed. This position has however meant that less attention has been given to land-use management, and therefore, a relatively *laissez-faire* approach has been adopted to the market and major private-sector driven developments (Harrison et al 2008). The effect of local government support for private sector driven projects are witnessed in the recent upsurge of mega-housing projects in South Africa (Turok 2016). These projects, similar to the trend in the global south have an inclination towards peripheral development outside the delineated urban edges, and are fuelled by national political imperatives such as the former Minister of Housing, Minister Lindiwe Sisulu's announcement in 2015 of a shift away from small-scale infill housing projects to large scale (15 000 or more units) mixed typology and subsidized initiatives (Harrison 2017). It has been suggested that the adoption of neoliberal globalisation in South Africa's case was largely swung to the internal structure of class power, and has been substantially internally generated by the major business groups that dominate the economy, and the state.

The remainder of the chapter detailed the historic evolution and current statuses of urban growth management policies in City of Joburg, eThekweni Metropolitan and City of Cape Town Municipalities. Despite concessions to the UDB line in CoJ, the policy is still regarded as receiving political support and being useful as a negotiation instrument. In EM however political influence and interests in decision-making are openly blamed for the encroachment of urban land uses onto formerly rural land.

Chapter 6 undertook an empirical analysis of the spatial outcomes of the CoCT urban edge line and development edges policy. By using a USI and relying on other secondary data sources, the chapter revealed a decline in land consumption since the inception of the urban edge and a disproportionately low rate of land development compared to population growth. If the measurement of sprawl is used as an instrument to measure the success of the urban edge, the results of this analysis suggest that the urban edge was successful in containing urban expansion. The chapter further revealed the amount of vacant land available for urban development inside the urban edge. Despite the findings of this study, a number of large-scale amendments to include additional land inside the urban edge were undertaken between 2012 and 2016.

In Chapter 7, assisted by the streams-model of decision-making analysis, the research evaluated both the decision-making processes of the CoCT during two urban edge line amendment proposals and the decision to terminate the urban edge line and development edges policy. The gradual amendments

made to the PHA since 2009 suggests incremental decision-making and a path-dependent trajectory of conceding to development pressure in the PHA area. Since 2009 therefore there has been incremental support for the neoliberalist developer agenda contrary to “rationalist” CoCT policy. It comes across as if the Mayoral Committee in both development proposals did not give their support, but that support for the applications ultimately came from the DEADP (2009) and the CoCT Mayor (2013). This indicates the ultimate locus of decision-making with the Mayor of CoCT. The approval of the Wescape development proposal contrary to ‘rational’ CoCT policy suggests decision-making in favour of a pro-development lobby. The lack of support coming from the CoCT portfolio committee, as opposed to the decision support coming from the DEADP and the rescindment of CoCT decisions by the Mayor, the locus of decision-making is again with the CoCT Mayor.

Prior to the termination of the urban edge and development edges policy, conflicting viewpoints existed among public and private stakeholders regarding the use of the urban edge as a containment instrument. Whilst the private practitioners and human settlements officials argue on the side of an economic rationale, officials from SPUD maintains an environmental and social rationale for keeping the urban edge in place. Public advertisement of the 2017 CTSDf revealed the following objections to the urban edge being removed. Firstly, the major lobby for maintaining the urban edge is the protection of the City’s agricultural, coastal and biodiversity areas, including the PHA. Secondly, the removal of the urban edge will complicate decision-making regarding proposals outside the urban edge, and possibly leave the process open to manipulation and undue influence. Thirdly, the removal of the urban edge contradicts the idea of creating an integrated, compact, transport-oriented city. Fourthly, removal of the urban edge is irresponsible with regards to future planning for infrastructure capacity. A positive comment was received from the provincial department of human settlements, noting the termination of the urban edge line as ‘refreshing’. The overwhelming sentiment from public input received reflects non-support for termination of the urban edge. Despite the public consultation process undertaken and comments received, the CTSDf was approved in 2017 without an urban edge.

Consultation with different role players revealed the perception that the Mayor of CoCT is much more growth-oriented than planning officials and is perceived as creating an investor-friendly city at all cost. The Mayor has openly stated her non-support of the urban edge and development edges policy even before its termination in 2017. The consistent political support for development proposals contravening the urban edge line were cited by all parties as discrediting the policy instrument. The prevalence of state capture requires the following to be evident (Carpenter and Moss 2014):

- A clear forfeiture of public interest
- A policy shift away from public interest and toward industry/special interest
- Intent by the industry in pursuit of this policy shift sufficiently effective to have caused an appreciable part of the shift

A clear and consistent stance against CoCT urban edge policy (assumed to be in the public interest), consistent poorly motivated political support for development proposals contravening the urban edge and development edges policy, as well as the ultimate termination of the urban edge in favour of supporting private-sector projects outside the urban edge supports evidence of a regulatory capture by the neoliberal state in CoCT.

8. 3 Discussion

The politically contested nature of urban growth management in planning warranted an investigation into planning as a political discourse. Power in planning, according to both Foucault and Habermas, instead of belonging to a specific individual or organization, is situated within a specific context of historical and social conditions. In this sense, the neoliberal influence in political decision-making has been thoroughly debated and proven. The complexity of the neoliberalist group of roleplayers has accelerated the trends of entrepreneurialism, consumerism and property-led development, and thereby actors in the urban land and property market have been elevated to the position of key players in urban development (Tasan-Kok & Baeten 2012). Purcell (2007) notes, decision-making processes under neoliberalism tend to legitimize existing power hierarchies under the auspices of democratic processes. As neoliberal policies tend to favour the economically powerful and advantaged, participation under neoliberal governance gives only these citizens a right to exercise a choice (Miraftab 2012).

There is an increasingly strong participation by the neoliberal agenda in spatial planning in the global north. Despite its tendency to act in economic (self)interest this agenda receives support from politicians and individual mayors. The neoliberal agenda therefore has the ability to, through strong influences in land use and spatial planning decisions, shape the way in which urban areas develop. The urban landscape of the US has been shaped by people like” Rudi Giuliani and Richard Riordan who followed strict agendas of privatization of state enterprises, reduction of government spending and bureaucracy and scaling back welfare services while fostering economic development and keeping businesses close” (Fainstein 2018).

The origin of attempts to manage growth in the global south lies in the successful implementation of urban boundaries and greenbelts during the industrial revolution in colonial motherlands. Placing a limit on the outward expansion on fast growing cities in the south proved to be fruitless as a result of the growing number of informal dwellers combined with the increased pressure for higher income exclusive urban developments at the urban periphery. The latest trend in the global south of establishing new, satellite cities outside urban areas is reminiscent of the new towns approach to decentralisation and dedensification practiced in the UK during the early 20th century. While such approach could provide relief to the overcrowded conditions in many cities of the south, the financial burden of providing infrastructure services to such remote locations is a luxury that most governments in the south can ill afford. In addition, proposals for such satellite cities are often targeted at a higher-end residential market, and rarely proposes ways of addressing growing informality and providing shelter to the poorest urban dwellers.

In the global south, where the disparate rationalities of capital and democracy are even more pronounced, governance of land development becomes a process of extreme conflict. Spatial planning policies (such as urban edges) create opportunities for conflict regarding land development matters, on which local authorities need to ultimately make decisions. Under conditions of extreme uncertainty, a wise policy maker in the south would, as suggested by Lindblom (1959) expect that their policies will achieve only part of what they hope and at the same time will produce unanticipated consequences they would have preferred to avoid. When considering the implementation of urban growth management in the south, perhaps this is exactly what happened.

The concept of urban growth management in South Africa was, during colonial times expressed as attempts to manage mass movement of specific population groups to urban areas. Following the abolishment of apartheid in 1994, such control of urbanisation was no longer acceptable and attempts to manage the growth of cities shifted to ways of limiting the physical expansion of urban areas, by using

European-inspired planning concepts such as compact cities, densification and urban edges. Since 1994 these concepts have formed the foundation of national, provincial and local spatial planning policies. Financial realities post-1994 in South African local authorities have however meant that local authorities consider private development proposals much more favorable despite many of them being contrary to official local policies supporting long term goals for the public good. By way of illustrating this, metropolitan urban edge policies in CoJ and EM have been subjected to considerable political interference and private sector contestation. In both these metropolitan municipalities the respective urban edge lines, although contested, remain as part of the SDF package of plans. The CoCT's urban edge line, having been in place since 2001, was removed from the 2017 CTSDf. This action suggests contestation of the urban edge to such an extent as to demonstrate a notable shift from a conservative growth approach to one that appears to support a neoliberal urban growth agenda. Decisions that were taken regarding two highly controversial development proposals undoubtedly formed part of the incremental path of terminating the urban edge and development edges policy in 2017. Closer inspection of these decision revealed the exact way in which the decisions were taken. In elevating key elements of decision-making the adapted streams model will be used as a guide:

The problem stream is represented by what Rydin (2007: 76) refers to as "multiple claims to represent reality and multiple ways of knowing". During deliberations on the development proposals that contravened the urban edge line, both development applicants and CoCT officials offered different perspectives on reality. Development applicants motivate the development proposals on the basis of the degradation of agricultural land and low potential environmental assets, that would best be suited to the development of housing to assist in addressing the city's housing shortage. SPUD officials from CoCT, based on official CoCT policy argued against the development proposals as a way of mitigating against agricultural degradation and environmental hazards arising from the Koeberg Nuclear station evacuation zone. Foucault suggests that what is considered to be rational will be defined by whoever is the most powerful. In this case of rationalising between the two opposing sides of reality, political decision-making by the Mayor of CoCT favoured the development applicant's view of reality. Flyvberg (1998) notes that the absence of rational arguments and factual documentation in support of certain actions may be more important indicators of levels of power than arguments and documentation that do exist. This was especially true in decision-making regarding the development proposals in the PHA and Wescap. In both instances, no rational explanations was offered for both final decisions by the Mayor to support the development proposals, contrary to CoCT policy.

The process stream represents the process that was followed, or that had to be followed during decision-making. The development proposals in the PHA and Wescap, as well as the decision to terminate the urban edge line and development edges policy constitutes amendments to the CTSDf. Amendments to a municipal SDF is guided by SPLUMA (2013: 25), stipulating the following:

"Before adopting the municipal spatial development framework contemplated in subsection (1) **and any proposed amendments to the municipal spatial development framework**, the Municipal Council must –

- a) Give notice of the proposed municipal spatial development framework in the Gazette and the media;
- b) Invite the public to submit written representations in respect of the proposed municipal spatial development framework to the Municipal Council within 60 days after the publication of the notice referred to in paragraph (a); and
- c) consider all representations received in respect of the proposed municipal spatial development framework. "

Any amendment to the CTSDF would therefore, following the requisite advertisement and consideration of public representations, be approved by the Municipal Council, of which the Mayor is the executive decision maker. The requirements by SPLUMA that amendments to the SDF must be informed by public participation is an attempt to safeguard the process against undue political influence. Habermass (1976) emphasised that in order to avoid political and ideological manipulation of individuals, planning must be the object of an enhanced participatory mode of decision-making and Forrester (2013) argues that any such participation must attempt to neutralise power relations by reducing their influence in order to produce more democratic outcomes. Unfortunately, a common obstacle to participatory planning is the political nature of the planning debate, within which it becomes difficult to find the authentic debate and argument. Considering the two viewpoints of reality as discussed under the 'problem stream', the real or rational argument is difficult to discern, which ultimately created an opportunity for a political authority to support one of the arguments over another. Despite the majority of public inputs opposing the development proposals as well as the termination of the urban edge and development edges policy, political decision-making supported the development proposals and terminated the urban edge line and development edges policy. The Mayor, in exercising her executive decision-making power, was able to amend the CTSDF even though the decisions were counter to CoCT policy.

The 'policy stream' constitutes those official policy guidelines that should inform the decision, i.e. in this instance the guidelines that should inform an amendment to the CTSDF. The development edges policy, as well as the policy requirements put forward in CTSDF 2012, Cape Flats District Plan 2012, PHA Rapid Planning Review (2009), Philippi Horticultural Area Management Plan (2001), CoCT Agricultural Land Review (Draft 2008), the Blaauwburg District Plan (2012) as well as the Koeberg Nuclear Emergency Plan (2005) opposed the development proposals in the PHA and Wescape. This suggests that factors outside the formal decision-making channels influenced decision-making.

The 'programme stream' denotes the sequence of events leading to specific decisions. The two development proposals that were supported outside the urban edge represents critical junctures in the decision-making process. Critical junctures are those moments of major change when new institutions are established. This can be defined as a period of significant change, which typically occurs in distinct ways in different countries, and which is hypothesized to produce distinct legacies (Collier & Collier 1991). These are the points of equilibrium where major changes are triggered primarily by exogenous forces, and new institutional arrangements and new developmental pathways are created. The loss of legitimacy of existing institutions, resulting from crises, allows a heightened opportunity for policy entrepreneurs or other actors to reshape existing institutions and create new arrangements (Sorensen 2015). Decision-making during the development proposals in the PHA and Wescape served as a precursor to terminating the urban edge line and development edges policy in 2017. These critical junctures were triggered by pressure from private developers, supporting the claim by Hunter (1959) that essentially nothing in government changes or adapts if it is not initiated or approved by a business-dominated elite.

The 'political stream' represents the kinds of political conflicts experienced during decision-making. Policy conflicts in local government usually revolve around cognitive conflicts, which theoretically can be addressed by rational decision-making and a set of trade-offs (Battersby 2016). However, a model of cost-benefit analysis fails to appreciate the complexity of public policy conflicts. Subsequently, during the dialogue between actors in policy decision-making, some dialects become more powerful than others. Despite rational arguments, public participation and policy guidance the CoCT Mayor's support for the development proposals in the PHA and Wescape, as well as her opposition to the urban edge line and development edges policy formed a powerful dialect against which reason did not hold. The

Mayor's rescindment of Municipal Council decisions, together with her public support for controversial development proposals without rationally defending such decisions, is reminiscent of the description by Cohen et al (1972) of how many managers "'muddle through' decisions, charting their way by the 'seat of their pants', relying on all the managerial 'street smarts' that they have acquired from 'winging it' through life, not to mention their 'gift of gab' that sometimes conceals the lack of substantive reason and logic with eloquence and a few gimmicks".

The methodology John (2012) describes a number of political science approaches that can help explain the causes and factors influencing policy decision-making. In evaluation of the decision-making relating to the urban edge and development edges policy in CoCT, the following two of these approaches appears most relevant:

1. Institutional approaches: political organisations, legal systems and bureaucracies structure public decisions and policy outcomes: The urban edge line and development edges policy formed part of the CTSDf (2012). SPLUMA (2013) represents the legal framework that guides any amendments to a municipal SDF. The institutional vulnerability, (i.e. allowing amendment of a municipal SDF by the Municipal Council (and its executive decision-making authority) of the CTSDf allowed it to be amended despite rational arguments informed by official CoCT policy guidelines and overwhelming public objections.

2. Groups and network approaches: associations and informal relationships, both within and outside political institutions, shape decisions and outcomes: The Mayor of CoCT's public disregard for the urban edge line and development edges policy, as well as her public support for two development proposals counter to CoCT policy suggests implicit support of a neoliberal agenda. As such, an informal good faith relationship between the Mayor and key private development roleplayers in CoCT is probable. This suggestion is supported by evidence from land developers and private planning practitioners presented in chapter 7 who stated that having friends in the Mayor's office certainly improved chances of obtaining support for an urban edge amendment.

8.4 Improving urban growth management in Cape Town

At the end of chapter 4, a number of themes regarding the way forward for urban growth management in the global south were explored. The following considers the experience of the urban edge and development edges policy in Cape Town against these themes.

8.4.1 Restrictive and outdated instruments used in urban growth management

Many challenges described in literature relating to urban growth management as part of spatial planning and policy in the developing world relate to outdated and restricted land-use controls and regulatory standards, supported by unreformed tenure arrangements (Chen 2014; Home 2014; Barredo & Demicheli 2003; Fekade 2000; Kombel & Kreibich 2000; Mattingly 1996; Farvacque & Mcauslan 1992). The colonial legacy of urban growth management in Cape Town cannot be disregarded. Even though claims for its support fits within a comfortable position of contributing towards the public good, urban realities in Cape Town have demonstrated conditions within which restricting land development were impractical. This was clearly illustrated in Chapter 6 by the disproportionate population growth measured against physical expansion in CoCT. Politically, one must appreciate the difficulties of defending first-world oriented policies that oppose development proposals (seemingly) offering solutions to the city's housing crisis.

There is a need for planning and growth management to become more relevant to present day conditions. In the global south, there is wide recognition for the fact that direct government intervention

has achieved little success. State policies and programmes will have to become much more responsive to information on the ground. In this regard having a rigid urban edge policy that limit urban expansion on a black and white basis will not be useful. Perhaps the CoCT was not entirely wrong in terminating such policy, however, having no other policy in place to negotiate with developers outside the urban edge line, termination may have been premature and irresponsible. In CoJ, the inclusionary housing policy is cited as having given politicians a way of negotiating with the private sector. This is a potential way of at least ensuring that land lost to urban development indeed contributes to the (low income) housing crisis. The development phasing line initially used by the EM is another way of safeguarding against unnecessary costs to the local authority for services infrastructure expansion beyond planned capacity. Perhaps such a line could at least form the basis of future negotiations with developers bringing development proposals on rural land.

8.4.2 The role of land markets

It is pointless to pursue strategies to counteract market pressures and reactions which consistently overwhelm the available means and commitments to carry them out. At the same time, if plans merely follow what the market dictates, there is no point to planning. The need is for realistic assessment of market intervention possibilities, a strategy commonly absent from the technical considerations of planners in the global south (Steel, Van Noorloos & Klaufus 2017). This again supports the previous point of growth management instruments that will need to become more responsive to conditions on the ground. Policy makers will need to explore a deeper relationship with role players in the land development market. By understanding dynamics in the release of land, ownership of land, value of land and timelines in the development of land, negotiations with developers can be much more informed and legitimate. All of the planning consultants interviewed cited the CoCT urban edge policy as having a limited understanding of how land development in the city works. In order therefore to have a plan for the future that the development community buy into, it needs to prove that there is a comprehensive understanding of experiences on the ground.

8.4.3 Public and political opinion

The consistent decision-making counter to CoCT policy by the Mayor, illustrates more than support for a neoliberalist agenda. It suggests not only that the Mayor is sympathetic toward the neoliberalist agenda, but also that the Mayor and the CoCT policy makers are not sharing a common vision for future development. This was illustrated by the decision-making around the urban edge line and development edges policy, to such an extent that regulatory capture by the neoliberal stake is suspected. The fact that the Mayor, despite having evidence available of developable land inside the urban edge line continued to support proposals outside the urban edge demonstrates the difference in her vision for the future development of Cape Town. Whether the urban edge line and development edges policy were the appropriate tools to use in Cape Town becomes less important here, what does become important is the danger this situation creates for future/other CoCT policies. If the Mayor is capable of overturning CoCT policies, by virtue of an individual decision, a Mayor captured by any powerful agenda can do much damage to the shape of a city and the greater good of its citizens.

Important to note here is the perspective by Foucault, that power does not belong and cannot be held at a particular point either by one individual or the sovereign, the state, or through the act of domination of one over another. Rather, power is 'employed and exercised through a net-like organisation' (Foucault 1980: 98). Power is relational and operates through elements of apparatus, including discourses, strategies, technologies, institutions, regulatory decisions, laws, administrative measures, scientific statements, philosophical stances, etc. The "apparatus is embedded in the exercise of power,

linked with and supported by types of knowledge” (Foucault 1980: 196). In this regard, the Mayor of CoCT is not a villain for disregarding the urban edge line and development edges policy, but rather a powerful decision-making agenda created as a result of different rationalities, policy guidelines ill-fitting to development conditions, and a relentlessly strong neoliberal agenda.

8.5 Reflections and scholarly contribution of the research

The praxis of politics in spatial planning decision-making is exceptionally complicated in cities of the global south. Spatial plans and policies that interfere with the operation of land markets and impose on land development restrictions, such as urban edges, result in a great deal of conflict at local government level. In South Africa, in the absence of absolute national policy imperatives in favour of limiting urban expansion, and with the devolution of spatial planning decision-making to local authorities, the decision-making arena has become particularly volatile. The legacy of apartheid created a considerable expectation that local authorities should improve the spatial effectiveness of cities on the one hand, and attract private investment to stimulate local economies on the other. The former represents a clear objective of ensuring that public good prevails over private interest, whereas the latter traditionally signifies the promotion of the interests of private capital, and as such an impossible situation of two opposing objectives in local authorities is created. These opposing objectives are highly visible in decision-making around the urban edge.

Rational-decision making in spatial planning awards us the opportunity to consider land development from a scientific point of view. This is where specialist studies and local knowledge allow “informed” decision-making regarding support or nonsupport for development proposals. Theories of pluralism and communicative action, however, ensure that rational decision-making is also informed by public opinion. It is within these complexities of marrying rational decision-making with public opinion that Charles Lindblom experienced the need to “muddle through”, and incrementally make decisions in favour of the public good, almost like boiling the frog. It is towards this kind of decision-making, this “muddling through”, that, as per SPLUMA, the decision-making structure in South African local governments is geared. This structure, however, severely underestimate the influence of two forces: The first, and especially important in metropolitan areas, is the capitalist neoliberal stake – its input and buy-in are pivotal to the economic growth and social improvement of its local area. Secondly, the highest ranking politicians in a local authority (i.e. the mayors and other members of executive committees) are short-term oriented and possess the ability to disregard rational comprehensiveness, plurality and muddling through in favour of counter-policy decisions they can or cannot defend. Whether these decisions are right or wrong, and whether they serve the public interest or other interests is not the point. What we do need to recognise is the inability of current decision-making structures to guard against (un)due influence. Advocating a decision-making structure that permits only rational decision-making removes politics from planning and has the potential danger of alienating citizens from decision-making regarding aspects that influence their daily lives. Advocating a decision-making structure that allows for political interference marginalises the expert knowledge of planning professionals. Perhaps this is the critical juncture for planning in the global south: that expert knowledge attempting to ensure public over private good has become redundant, and that city-wide attempts to shape the behaviour of capitalist interests are lost in political translation. Planning in the south can in future benefit from the new definition of spatial planning offered by Hillier (2007) as strategic navigation – an exercise of speculation into what may happen and inquiry into what, at a given time and place, we might think or do and how this may influence a socially or environmentally just spatial form.

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ANNEXURE A

Unstructured Interview Questions CoCT (Spatial Planning and Urban Design):

GIS and land use data

How has the metropolitan area grown during the last 20 odd years

Which areas has experienced the most growth

What kind of growth has this been?

What are the most prominent local growth trends?

Policy information

What is the current policy with regards to urban growth

Why has this approach/policy been decided upon, where does it come from?

Since when has it been in place?

How has it changed?

How is it received by the public and private sector role players?

What, from an official side, are the biggest challenges with regards to implementation and enforcing the policy

Who are the most prominent private sector role players in land development

Political buy-in/support

Interview Questions Local Government Department of Human Settlements:

What are the biggest drivers of local-government assisted housing projects in Cape Town?

Which areas of the City has seen the most growth in terms of government subsidised housing?

What are the biggest obstacles to the identification of new land for new subsidised housing projects?

Describe the relationship between the City's Spatial Planning Department and the Department of Human Settlements?

To what extent is decisions on new subsidised housing projects (either by the City or the Province) guided by the City's Spatial Development Framework?

Is the City's Urban Edge Policy having an impact on the City's decision of where to locate new housing projects?

Is the City's Urban Edge Policy assisting Human Settlements in being able to acquire land?

Is there any benefit to be had from an urban edge policy, from a Human Settlements/subsidised housing point of view ? If so, how and what?

Interview Questions Provincial Department of Human Settlements:

What are the biggest drivers of government assisted housing projects in Cape Town?

Which areas of the City of Cape Town has seen the most growth in terms of government subsidised housing?

What are the biggest obstacles to the identification of new land for new subsidised housing projects?

Describe the relationship between the Provincial Department of Environmental Affairs and Development Planning and the Department of Human Settlements?

To what extent is decisions on new subsidised housing projects guided by the Provincial Spatial Development Framework?

Is the Provincial Urban Edge Policy having an impact on the Department of Human Settlement's decision of where to locate new housing projects?

Is the Urban Edge Policy assisting Human Settlements in being able to acquire land?

Is there any benefit to be had from an urban edge policy, from a Human Settlements/subsidised housing point of view ? If so, how and what?

Interview Questions DEADP:

What is the current policy with regards to managing urban growth?

Why has this approach/policy been decided upon, where does it come from?

Since when has it been in place?

How has it changed?

How is it received by the local authorities in the Province?

What, from an official side, are the biggest challenges with regards to implementation and enforcing of the policy?

At a Provincial level, do you feel that this policy receives political backing/support?

Which areas within the Western Cape has experienced the most growth?

What kind of growth has this been?

Interview Questions WCPDF:

How is the Cape Town urban edge policy received by the property development community in the City of Cape Town?

What, from a property development side, are the biggest challenges with regards to the Urban Edge Policy?

Do you feel that this policy receives political backing/support?

Generic Interview Questions Urban Planning Consultants CoCT:

Are you responsible for land development/land development applications in Cape Town only?

How many land development applications have you submitted to the City of Cape Town municipality during the last ten years?

How many of these were located outside the urban edge?

How many of the applications submitted outside the urban edge have been approved?

If approved outside the urban edge, under which conditions?

Are you positive about the city's current urban growth management strategy i.e. urban edge?

Do you think the policy is appropriate for the local context?

What do you consider to be the biggest challenges regarding the City's urban edge policy?

Has the current urban edge policy discouraged you from supporting clients who wish to submit land development applications outside the urban edge?

In your opinion, has the current urban edge policy forced property developers to look at land located within the urban edge for land development opportunities?

Is the current Spatial Framework clear on areas where development are encouraged?

Are these areas adequately/effectively encouraged?

Does the city involve private stakeholders in decisions regarding the location/amendment of the urban edge?

Do you experience the current policy as flexible?

Do you believe a more flexible approach will yield better results?

Do you think the city's current policy currently appreciates/understands local growth patterns/investor decisions?

Do you think the current policy is an effective way of managing/controlling urban growth?